

Nepal's Journey Towards Zero Hunger

The Triple Challenge of Food Security, Food Self-Sufficiency and Economic Prosperity



नेपाल विकास अनुसन्धान प्रतिष्ठान
Nepal Development Research Institute

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Foreword

Attaining the Sustainable Development Goals (SDGs) is a high priority for Nepal, including Goal 2 of achieving Zero Hunger (SDG2). Since the initiation of SDGs by the United Nations in 2015, the Government of Nepal (GoN) has taken various measures to internalise them in its ongoing policies and programmes, and these measures have resulted into notable accomplishments.

This publication, by the Policy Research Institute (PRI), the official think tank of the GoN, and the Nepal Development Research Institute (NDRI), a well-established non-governmental think tank of the country, comes at a time when renewed and accelerated efforts are needed to meet the SDGs. I believe this document serves as an important reference to understand the progress made so far, identify the gaps and guide the broad way forward.

As pointed out in this document, Nepal has made significant progress in the past few decades, as reflected in the improvement of various food consumption and nutrition indicators. It is worth noting that in some measures, the progress has been better than that of other countries in South Asia.

However, the document also notes that despite more than 60 percent of the people being engaged in agriculture, Nepal remains a food-deficient country and relies on imports amounting to several Hundred Billion Rupees annually. While production has increased towards self-sufficiency in some food items such as milk, eggs and meat, Nepal has still relies on a the imports for various agricultural products; such as rice, vegetables and fruits in great amount. It is also very concerning that Millions of young Nepalis are migrating to foreign countries in search of employment, despite the abundant opportunities for generating agricultural income in Nepal.

The Ministry of Agriculture and Livestock Development (MoALD) has an important responsibility related to food security, and thus, I would like to express my full commitment from the Ministry towards achieving Zero Hunger, particularly in the critical need of attaining food self-sufficiency in the country.

I would like to take this opportunity to thank and congratulate the team of PRI and NDRI for this commendable work and call upon all the stakeholders to make necessary efforts towards achieving the cherished goals of Zero Hunger, food self-sufficiency and economic prosperity in order to create decent livelihoods for the people of Nepal.

Dr. Madan Prasad Pariyar

Minister,

Ministry of Agriculture and Livestock Development



नीति अनुसन्धान प्रतिष्ठान Policy Research Institute

(नेपाल सरकारको विशेषज्ञ समूह)



Preface

Food for all is a fundamental right of people in the world. Hunger remains one of humanity's greatest enemies, and its eradication is not only a moral imperative but also a strategic necessity for ensuring food security, food sovereignty and national stability. Aligned with the Sustainable Development Goals (SDGs), Nepal has underscored eliminating hunger as a national target for 2030. Over the past two decades, the country has made commendable progress in improving food security and the nutritional status. However, attaining SDG2 targets by 2030 still remains very challenging.

Foreseeing the challenges ahead, Policy Research Institute (PRI) and National Development Research Institute (NDRI) jointly initiated this research to explore effective pathways towards Zero Hunger. Despite the progress, this report highlights persistent and emerging issues - micronutrient deficiencies, regional, ethnic/racial, and gender disparities and emerging patterns of obesity, forewarning the complexities in Nepal's nutritional landscape. Addressing the 'triple burden of malnutrition' - undernutrition, obesity, and micronutrient deficiencies- requires an integrated policy response and programmes.

Nepal's economic vulnerabilities, particularly marked by remittance dependence and limited domestic employment opportunities, further call for macroeconomic reform. Expanding productive sectors, fostering competitive industries, and modernizing agriculture can create sustainable employment and stimulate economic growth. Declining youth participation and weak market competitiveness have left agriculture in a fragile state. This report highlights agri-industrialization, smart financing, technological innovation and multi-sectoral coordination as critical policy directions for revitalizing the sector.

As Nepal aspires to achieve Zero Hunger targets, the policy choices made in the coming years will be decisive. At the current pace, achieving the 2030 targets appears to be very challenging. This publication opens a valuable avenue for national dialogue on ending hunger through data-driven insights. It is believed that policymakers, researchers, and development partners will use policy recommendations to acquire a sustainable agriculture ecosystem in the country to contribute to zero-hunger mission and create employment in the country.

Finally, I express my sincere appreciation to researchers of PRI and NDRI for their dedicated collaboration in producing this report, and I remain confident that their collective efforts will make a substantive contribution to Nepal's policy landscape in the years ahead.

Prof. Dr. Lekhnath Sharma
Executive Chairperson



नेपाल विकास अनुसन्धान प्रतिष्ठान Nepal Development Research Institute

Preface

It is my great pleasure to introduce this important publication, jointly developed by the Nepal Development Research Institute (NDRI) and the Policy Research Institute (PRI), the official think tank of the Government of Nepal, as part of our collective efforts to eliminate hunger.

For over two decades, NDRI has been at the forefront of research on food security, nutrition and related development challenges. Our journey has included landmark studies such as Passage to India: Migration as a Coping Strategy in Times of Crisis in Nepal (2008), which examined how migration decisions and outcomes influenced livelihoods; Market and Price Impact Assessment (2008) to assess the food security impacts in the context of then soaring global food prices; and two iterations of the groundbreaking Food Security Atlas of Nepal in 2010 and in 2019, developed in collaboration with the World Food Programme and the National Planning Commission. These studies, along with numerous other assessments and research conducted in partnership with national and international organisations, have contributed to evidence-based policymaking supporting Nepal's efforts towards improving food security and nutrition outcomes.

This publication arrives at a pivotal moment. As we approach the 2030 deadline for achieving the Sustainable Development Goals, there is an urgent need for informed strategies and concerted action. We are particularly proud that this work has been scrupulously led by Dr. Krishna Pahari, a distinguished expert with decades of experience in food security and nutrition both in Nepal and internationally, working alongside a team of recognised specialists from NDRI and PRI. I am pleased to note that this work has been completed without any external funding, reflecting the commitment of the team at NDRI and PRI in contributing towards shaping evidence-based policies for the benefit of Nepali society at large.

Following NDRI's receipt of the Policy Award from PRI in 2024, we are honoured to present this flagship publication developed in partnership with them. I am confident that it will serve as a valuable resource for policymakers, researchers and practitioners across government agencies, development partners, research institutions and civil society organisations working to advance food security and nutrition in Nepal.

Shikha Thapa Magar, PhD

Executive Director

November 7, 2025

Acknowledgements

As the clock ticks on Nepal's efforts towards achieving Zero Hunger, Goal 2 of the Sustainable Development Goals, everyone must step up to do their part. This initiative has been a few years in the making and is the result of close collaboration among dedicated institutions and individuals committed to advancing food security in Nepal. The study team at Nepal Development Research Institute and Policy Research Institute would like to extend its sincere gratitude to all those who contributed to the preparation of this report on Nepal's journey towards Zero Hunger.

The team is honoured by the encouragement and inspiring words from Dr. Madan Prasad Pariyar, the Honourable Minister of Agriculture and Livestock Development, whose Foreword has added great value and motivation to this publication. Equal thanks are also extended to the Executive Chairperson of PRI for his spirit of partnership, guidance and unwavering support in this joint endeavour.

Heartfelt appreciations go to Dr. Shikha Thapa Magar, Executive Director of NDRI, and former Executive Director Dr. Shankar Shrestha for their continuous support throughout the process. Professor Emeritus Stephen Haslett of Massey University provided valuable inputs and comprehensive feedback, while Bishow Parajuli's reviews and encouragement strengthened the quality of the report.

Many thanks to Dr. Sridhar Thapa from WFP for his expert guidance regarding usefulness of WFP household survey data and for kindly reviewing the report, as well as to Ram Krishna Regmi from the Ministry of Agriculture and Livestock Development for his guidance on the agriculture-related data. Special thanks are also due to Dr. Divas Basnyat for reviewing the climate-related analysis and providing constructive inputs.

Sincere acknowledgements are due to Dipendra Prasad Pant from PRI and Daya Shrestha from NDRI for their meticulous copy-editing, and Subin Ulak for the report's graphic design. The contributions of the administrative and communication staff of PRI in the finalisation and dissemination of the report are gratefully recognised.

Finally, I would like to express by deepest gratitude to all members of the NDRI family, particularly the Livelihoods and Food Security team, for their steady encouragement and support over the years.

It is high time that we all worked collectively towards a future where hunger and malnutrition become history. We will feel honoured if this humble effort contributes in any way towards that journey by supporting evidence-based policies and actions.



Krishna Pahari, PhD
The Study Coordinator

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Abbreviations

CBS	: Central Bureau of Statistics
FAO	: Food and Agriculture Organization of the United Nations
GDP	: Gross Domestic Product
GoN	: Government of Nepal
ILO	: International Labour Organisation
IMF	: International Monetary Fund
MoALD	: Ministry of Agriculture and Livestock Development
MoHP	: Ministry of Health and Population
MoF	: Ministry of Finance
MoLESS	: Ministry of Labour, Employment and Social Security
NDHS	: Nepal Demographic and Health Survey
NDRI	: Nepal Development Research Institute
NDRRMA	: National Disaster Risk Reduction and Management Authority
NGO	: Non-Governmental Organization
NLSS	: Nepal Living Standards Survey
NPC	: National Planning Commission
NPR	: Nepali Rupees
NSO	: National Statistics Office
NTFP	: Non-Timber Forest Product
PRI	: Policy Research Institute
SDG	: Sustainable Development Goal
WFP	: World Food Programme
WHH	: Welthungerhilfe

Executive Summary

Eliminating hunger is a top priority globally, as well as in Nepal.

Nepal has made significant progress in improving household food security as well as nutrition of its population, as evidenced by the analysis of national-level survey data as well as internationally available data. At present, Nepal is at a moderate level of hunger with a global hunger index score of 14.8. The prevalence of undernourishment has decreased significantly from 17 percent in 2000 to 5.7 percent in 2023. Stunting of children under the age of five has decreased from 57 percent in 2001 to 25 percent in 2022, while the underweight of children under five has decreased from 48.3 percent to 18.7 percent during the same period. However, micronutrient deficiency remains a major concern in Nepal, with the prevalence of anaemia among women of reproductive age (15 to 49 years) at 34 percent and children under five at 43 percent.

A significant improvement has also been observed in food consumption by the populations. Households are now consuming more calories than before, they have a more diverse diet and the consumption of vegetables and fruits, milk and meat has increased significantly in the last two decades. For instance, in 2003/04, the share of calories from cereals in the total caloric consumption by households was 81 percent, followed by oil and fats (5.7%), pulses (3.1%), milk (3.0%), sweets (2.2%), tubers (1.1%), fruits (1.1%) and meat and fish (1.0%). Fast forward to 2022/23, the share of calories from cereals went down to 56 percent while there were significant increases in the shares from oils and fats (12.3%), pulses (6.6%), milk (5.4%), vegetables (3.2%), meat and fish (2.8%), fruits (2.2%), sweets (4.0%) and ready-made food (4.7%).

The progress made in improving household food security and nutrition is also in line with the significant reduction in national poverty level, which has decreased from 31 percent in 2003/04 to 20 percent in 2022/23.

Despite the overall progress at the national level, significant variation exists within the country. For example, Karnali Province has the highest level of household food insecurity and chronic malnutrition with a stunting prevalence of 35.8 percent, while acute malnutrition rates are highest in Lumbini (16.2%, above the WHO emergency thresholds of 15%), followed by Madhesh (10.1%). Prevalence of anaemia in women of reproductive age and children is most serious in Madhesh at 52.6 percent and 50.6 percent respectively.

With increasing consumption, there are also populations facing problems associated with over-consumption, unhealthy food habits and a sedentary lifestyle, particularly in urban areas. Nepal is now facing a triple burden of malnutrition – undernutrition, obesity and micronutrient deficiencies.

Despite the steady progress in household food consumption and nutrition, which needs to be further accelerated, Nepal remains highly vulnerable on several accounts.

Firstly, the agricultural production is not keeping pace with the increasing food demands of the growing population. Even though more than 60 percent of the population is engaged in agriculture, Nepal depends heavily on imports even to meet its basic food needs. This is of serious national concern.

Secondly, despite the reduction in poverty, the overall performance of the economy has been very disappointing. The GDP per capita in Nepal at USD 1,496, is little over one half of that in India, and about one tenth of China; and is growing at a pace slower than its neighbours. The economy is heavily dependent on remittances from millions of migrants working in different parts of the world due to the lack of adequate livelihood opportunities within the country. The recent political upheaval led by the youth could be a reflection of frustration with the lack of employment opportunities for the working population and the overall poor governance. With share of remittance accounting for about a quarter of the national GDP, the economy is highly vulnerable to external shocks.

Remittances, social protection and improvement in basic services such as road, health services and schooling, have been the key contributors to improved food security and nutrition. While social protection has had a positive impact, the increasing cost of social protection has put pressure on the fiscal situation, with the total annual expenditure on social protection reaching almost the same level as the capital expenditure.

Looking at the trends so far, globally, it is no longer realistic to expect to achieve Zero Hunger targets by 2030. In Nepal, despite the progress made so far, meeting those targets appears to be a daunting task though it may be possible to attain targets on some indicators with accelerated efforts. Among them, it could be possible to bring the prevalence of undernourishment (PoU) to a minimal hunger level (below 2.5 percent) with enhanced efforts. Reducing the global hunger index score from the current moderate level (14.8) to a low level (<10.0) could be very challenging and would require serious efforts. Similarly, reducing stunting prevalence to below 15 percent, half of the level compared to 2015, could still be a daunting task.

Recommendations

Nepal is grappling with the triple challenge of achieving food security, food self-sufficiency, and economic prosperity that generates livelihoods and income opportunities. All efforts should be dedicated to addressing these challenges.

Food security and nutrition: Major efforts are needed in addressing food insecurity and stunting, particularly in areas like Karnali Province, and in improving acute malnutrition in Lumbini, Madhesh and Sudurpaschim. Stunting prevention requires a life cycle approach,

while acute malnutrition can be improved with focussed interventions for a relatively short period. Urgent steps should be taken to address anaemia in Nepal, particularly in Lumbini, Madhesh and Sudurpaschim provinces. Multi-sectoral, coordinated efforts should be made for intervention in all steps of the food chain with a food systems approach. A well-coordinated, targeted approach is needed for a more effective social protection system.

Food self-sufficiency: Nepal should strive to be self-sufficient in basic food needs by 2030, and aim to be a net food exporter. This is achievable by aiming at an agricultural growth rate of 5 percent to 7 percent per annum, reducing post-harvest loss, and with appropriate policy measures put in place for providing market access to domestic production.

Economic prosperity: Concrete steps must be taken towards boosting economic growth, creating decent livelihoods and income opportunities inside the country for the working age populations.

One of the main challenges in the implementation of programmes directed to the attainment of SDGs, including the Zero Hunger, has been the inadequate funding. Going forward, this is likely to be even more challenging with the deteriorating funding landscape, given Nepal's heavy reliance on foreign assistance. Therefore, renewed efforts must be made to ensure adequate funding for critical programmes on food security and nutrition. This can be achieved by prioritizing government allocation and adopting proactive, smart approaches to attract international funding. All of these efforts require a robust governance system.



Section A

Introduction, Approach and Methodology

This section provides an introduction about this report, the approach used for presenting the state of food security and nutrition and the general methodology.





About this Publication

Eliminating hunger is a top priority globally and also in Nepal.

Zero Hunger is one of the most important among the Sustainable Development Goals (SDGs). Indeed, it is not acceptable to have people suffer from hunger in this modern age. Governments throughout the world have committed to achieving Zero Hunger by 2030, under the United Nations Framework. The recent push to eliminate hunger by 2030 under the Global Alliance against Hunger and Poverty is a reflection of the high priority attached by the international community to eliminating hunger.

Having a sound policy is especially important for Nepal at this time, when the Government has been under increasing pressure to meet the aspirations of prosperity in line with the political transformation, as it is expecting to graduate from the Least Developed Country status in 2026, and is aspiring to be a middle income country by 2030.

Achieving Zero Hunger is an ambitious task that is possible only through concerted, coordinated efforts and programmes led by the Government. Evidence-based policies and the corresponding programmatic efforts, combined with efficient utilisation of resources, could contribute to achieving the optimal results, which is especially important for a least developed country like Nepal with a limited resource base. Evidence-based policies are possible via research works that base relevant data, monitor the progress and assess the trajectory towards meeting the goals.

This report is a joint attempt of Nepal Development Research Institute (NDRI) and the Policy Research Institute (PRI) to support the efforts towards achieving zero hunger in Nepal. NDRI, an independent, non-profit research organization with more than two decades of supporting evidence-based policies in Nepal, with extensive experience in food security studies, and the PRI, the think tank of the Government of Nepal, supporting evidence-based policies since its establishment in 2017

This report analyses and synthesises existing national and international data on food security and hunger in Nepal, drawing from diverse sources to provide a comprehensive assessment for understanding the current situation and trends. It identifies key gaps and challenges while offering actionable insights and strategic recommendations to strengthen Nepal's food security agenda and advance its commitment to ending hunger and attaining food self-sufficiency by 2030.



Motivation and Objectives

The Constitution of Nepal has specified food security as one of the fundamental rights of the population. It is thus important to have an understanding of how to assess and present the situation on food insecurity or hunger, a) to design appropriate policies and programmes and b) to periodically monitor progress and make necessary adjustments.

The main motivation for this publication is to provide a document that serves as the reference for policy makers and development practitioners as Nepal moves forward with its aspiration to achieve Zero Hunger. The findings of this study are believed to serve as a valuable resource for evidence-based policymaking, guiding government interventions and investment priorities, and informing development partners and the Non-Governmental Organizations (NGOs) engaged in food security initiatives. This report is particularly relevant for policymakers, researchers, and civil society organizations working to enhance food security and agricultural development in Nepal.

Following are the specific objectives of this study:

- 1) Assess Nepal's progress towards achieving Zero Hunger by analysing trends in food security, and nutrition.
- 2) Examine key challenges hindering food security, including agricultural constraints, trade dependency, and climate risks.
- 3) Evaluate the policy landscape, including existing food security programmes and their effectiveness.
- 4) Provide recommendations to accelerate Nepal's path towards food self-sufficiency and Zero Hunger.

Organisation of the Report

This report is organised into four broad sections as follows:

Section A: provides some **introduction** to the report, motivation and objectives (Chapter 1), followed by the broad analytical approach and methodology used, including limitations (Chapter 2).

Section B provides a comprehensive analysis of **recent trends and the current situation** on food security and nutrition, first starting with a presentation on the big picture on Nepal's journey towards Zero Hunger (Chapter 3), followed by a national overview of the household food security situation (Chapter 4). This is then followed by a deep dive into the situation



at the sub-national level by looking into the provincial situation (Chapter 5), rural and urban location (Chapter 6), and gender and ethnicity (Chapter 7).

Section C presents an analysis of various **factors or sectors driving food security and nutrition**. It includes agriculture (Chapter 8), markets and trade (Chapter 9), economy and livelihoods (Chapter 10), migration and remittances (Chapter 11), climate, disaster and food security (Chapter 12), education and health (Chapter 13) and social protection (Chapter 14). Among the four pillars of food security, agriculture and markets are related to food availability; economy and livelihoods, migration and remittances, and social protection are related to food access; education and health are related to food utilisation; and climate and disaster are related to stability.

Section D focuses on the **governance, policy environment and the way forward**. An analysis of the governance and food security (Chapter 15) is followed by food self-sufficiency, food security and national security (Chapter 16) and policy landscape relating to food security and nutrition (Chapter 17). Finally, in Chapter 18, there is a concluding note on the progress towards Zero Hunger, followed by recommendations for the way forward.



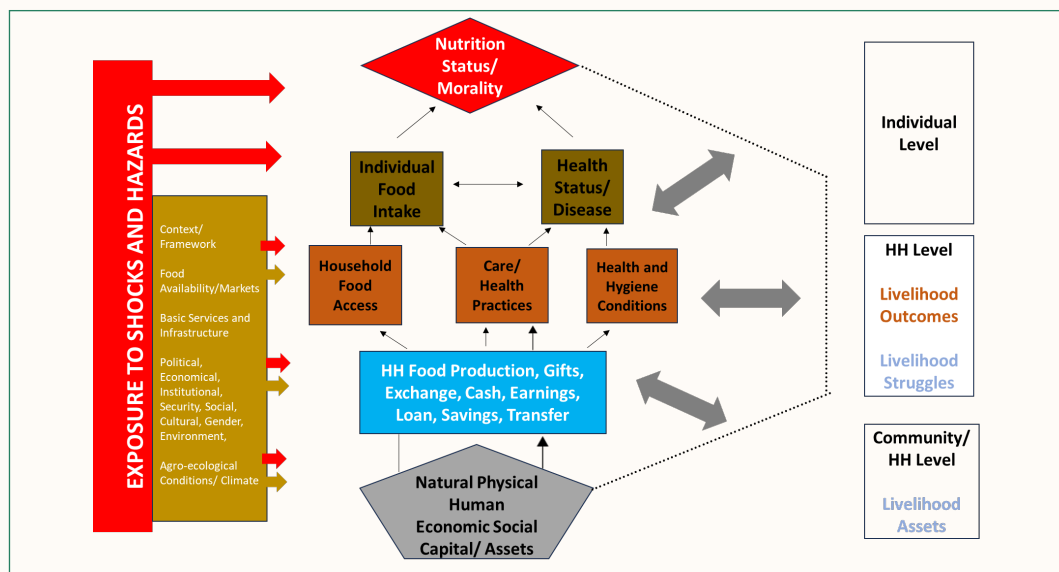
Analytical Approach and Methodology

While eliminating hunger and achieving food security and nutrition is a top global priority, particularly in developing countries, there is no single method or indicator that is universally accepted and can describe the whole situation. Thus, this report uses a comprehensive approach for understanding the situation of hunger and food security in Nepal vis-à-vis the international context, analysis of the household food security situation, and then various contributing factors such as agriculture, economy and livelihoods, migration and climate change, which have an impact on food security.¹

Conceptual Framework for Food and Nutrition Security

The most widely used definition of food security is that from the World Food Summit in 1996. According to this food security exists "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life".

Figure 2.1: Food and nutrition security conceptual framework



Source: WFP (2021)

1. A brief description on how the concept of food security has evolved over time is provided in Annex 1.



The conceptual framework for the food and nutrition security at the household level (Figure 2.1), as adopted by the WFP's Comprehensive Food Security and Vulnerability Analysis (CFSVA) framework, links the four food security elements (availability, access and utilisation and stability) to households' asset endowments, livelihood strategies, as well as the political, social, institutional and economic environment (WFP, 2021).

This report attempts to provide credible evidence on food security and nutrition in Nepal, using data from various sources, including analysis of household-level data, as well as analysis of the four dimensions of food security to present the situation at the national, regional, and household levels in Nepal. The methodology involves a systematic evaluation of food security challenges, progress and policy effectiveness while comparing Nepal's standing with global and regional benchmarks. Besides, the report provides a comprehensive mapping of various policy measures by the Government and a review of their effectiveness, such as the Agriculture Development Strategy (2015–2035) and the Right to Food and Food Sovereignty Act (2018). This comprehensive approach ensures a well-rounded assessment of Nepal's food security landscape.

A summary of key indicators used to assess food security at the national, regional, and household levels is provided in Table 1. Annex 2 provides a brief on additional indicators which are used in various food security analyses, including those which are not used in this report. It also provides detailed explanation on the households food consumption analysis from NLSS data.

Table 1: Key indicators used in the report

Indicator	Description	Data Source
Global Hunger Index (GHI)	Published annually by Concern Worldwide and Welthungerhilfe (WHH), it is a widely used method for measuring and tracking hunger at global, regional, and national levels. GHI scores are based on the values of four component indicators: undernourishment, child stunting, child wasting, and child mortality (the share of children who die before their fifth birthday)	A series of annual GHI reports, the latest being for 2025



Indicator	Description	Data Source
Prevalence of Undernourishment (PoU)	The State of Food Security and Nutrition in the World (SOFI) is published annually by the UN Food and Agriculture Organization (FAO), UNICEF, International Fund for Agricultural Development (IFAD), and World Health Organization (WHO). This provides the prevalence of people who cannot consume the minimum calories required for a healthy life. The report provides data for the world, different regions and countries, thus providing a basis for international comparison and to analyse the trends.	A series of SOFI reports, the latest being for 2025
Global Food Security Index (GFSI)	Developed by the Economist Impact and supported by Corteva Agriscience, the GFSI is one of the methods used to compare the food security situation internationally. The index evaluates food security in 113 countries across four key pillars: affordability, availability, quality and safety, and sustainability and adaptation. The index is based on a dynamic benchmarking model constructed from 68 qualitative and quantitative drivers of food security.	The latest available report is from 2022
Food Consumption Score (FCS)	FCS is the most commonly used food security indicator by WFP and partners. FCS is a composite score based on households' dietary diversity, food consumption frequency and the relative nutritional value of different food groups. It is calculated by asking how often households consume food items from 8 different food groups (plus condiments) during a 7-day reference period. Depending on the value of FCS, households are grouped into poor, borderline or acceptable food consumption groups.	A series of national household surveys conducted by WFP Nepal
Consolidated Approach to Reporting Food Insecurity (CARI)	The CARI is a harmonised WFP method used to analyse primary data from a single household food security survey and classify individual households according to their level of food security. It classifies households into four categories, which are food secure, marginally food secure, moderately food insecure or severely food insecure. It is the most comprehensive method to analyse and present household food security.	Series of national surveys conducted by WFP Nepal



Indicator	Description	Data Source
Caloric Intake	Using the data from a series of Nepal Living Standards surveys (NLSS), caloric consumption per person per day has been calculated by considering the food consumed at home and outside, and the caloric values of the food consumed. Furthermore, analysis is used to calculate the proportion of the population who are consuming calories less than the national threshold of calories required per person per day, which is set as 2,236 Kcal per person per day by the National Statistics office, while analysing the NLSS-IV.	NLSS-IV (2022-23) and previous dataset for trends analysis
Stunting	Stunting refers to the proportion of children under the age of five, who are too short for their age. This is measured as the proportion of children whose height is less than two standard deviations from the mean value for the given population. This is a manifestation of chronic malnutrition, caused by a number of factors including food intake, care practices and micronutrient deficiencies. Making improvements in the stunting situation requires coordinated, longer-term interventions.	Nepal Demographic and Health Survey (NDHS) 2022 and previous rounds
Wasting	Proportion of children under the age of five who are too thin for their height, measured as the percentage of children whose weight is less than two standard deviations from the mean. This is a manifestation of acute malnutrition and is caused by lack of energy due to insufficient food, or diseases such as diarrhoea or malaria. Prevalence of wasting can increase quickly due to sudden shocks such as disasters or epidemics. Wasting can also cause death if the wasting level gets severe for a certain duration. Reductions in wasting prevalence requires quick interventions, such as providing energy-dense food, and the situation can also improve relatively quickly with appropriate measures.	Nepal Demographic and Health survey 2021 and previous rounds for trend analysis



Indicator	Description	Data Source
Underweight	Proportion of children under the age of five, whose weight is too low for their age. This is measured as the proportion of children whose weight is less than two standard deviations from the mean. This can be a manifestation of both chronic and acute malnutrition and can be caused by a number of factors, including the mother's health, care practices, food intake and other prevailing socioeconomic factors..	Nepal demographic and health survey 2021 and previous rounds for trend analysis
Micronutrient deficiencies	In addition to calories, it is important to have various micronutrients such as Vitamins and minerals for good health. Iron deficiency for mothers and children is of particular concern in Nepal, and is considered in this document.	Nepal demographic and health survey 2021 and previous rounds for trend analysis

Box 2.1: Evolution of the Zero Hunger Concept

In 2003, President Luiz Inácio da Lula initiated Fome Zero (Zero Hunger) in Brazil, as a programme of the Government of Brazil with an aim to eradicate hunger and extreme poverty in the country. This integrated approach to eliminate hunger has been widely acclaimed for its success. In 2012, a national zero hunger programme was initiated in Pakistan under the technical assistance of the World Food Programme. In 2015, Zero Hunger was incorporated into the Sustainable Development Goals of the United Nations as Goal 2 among the 17 SDGs. The momentum continues, with the latest launch of the Global Alliance against Hunger and Poverty (GAAHP), with 82 countries, during the G20 summit in November 2024, in Brazil, led by President Lula again. This ground breaking initiative aims to fast-track global efforts towards eradication of hunger and poverty, key priorities under the SDGs (GAAHP 2024). In line with the global initiative, Nepal has also taken steps to formalize its commitment through the adoption and the implementation of the Zero Hunger Challenge National Action Plan (2016-2025).

Analysis of the contributing factors

Food security and nutrition are the outcomes of several factors, that determine an individual's or household's ability to access and consume nutritious food for a healthy living. Those may be related to food availability (local production or availability in the market), food access (economic and physical access), utilization (health practices, hygiene and sanitation), and vulnerability (shocks due to natural or man-made disasters). To understand the underlying causes of the current food security and nutrition situation, an analysis is presented on these various pillars of food security. Time series



data from the Ministry of Agriculture and Livestock Development (MoALD) have been used to present and analyse the trends of food production, while data from the Ministry of Finance (MoF), the World Bank (WB) and National Statistics Office (NSO) have been used for various aspects related to the country's economic and livelihoods landscape. Similarly, data from the NSO and the Ministry of Labour, Employment and Social Security (MoLESS) have been used for statistics on migration patterns. Data from other UN sources are also used, particularly for positioning Nepal's situation against its international counterparts.

Limitations

While the study employs a comprehensive methodology and robust framework for assessing food security and nutrition by integrating household-level data, macroeconomic and agricultural trends and international benchmarks, we acknowledge the following limitations related to data and their interpretation.

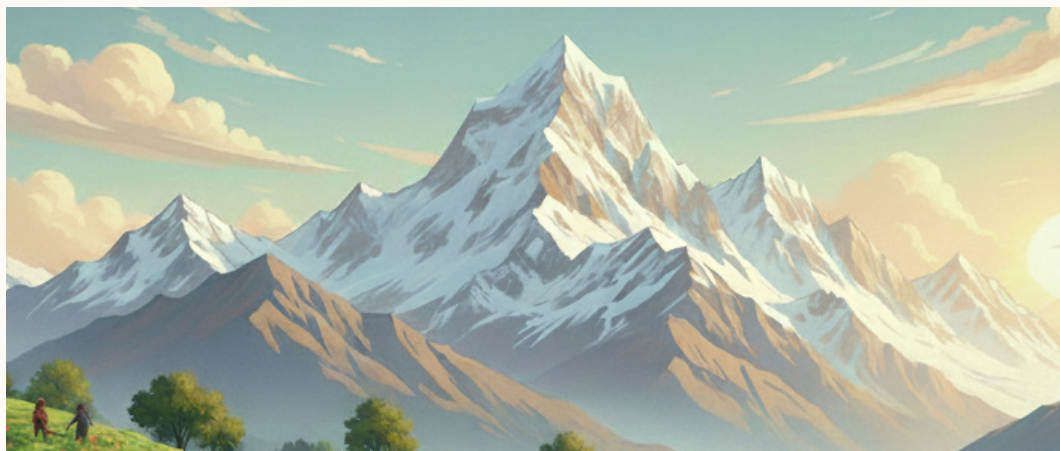
- 1) **Data limitation from national surveys:** Even though it would be good to have data on food security and nutrition indicators disaggregated at the district or municipality level, this is not possible from the available data from national surveys such as the NLSS or NDHS due to the limitations of the sample size. Thus, the data are only presented up to the provincial level..
- 2) **Data variation:** There are differences in the data values for certain indicators from both national and international sources. To the extent possible, the most authoritative source of data has been used for each indicator; for instance, data from various NLSS waves for household food consumption and caloric intake, and yearly MoALD statistics for agricultural production.
- 3) **Variability in international comparisons:** Differences in methodologies across food security indices (GHI, PoU, GFSI) may affect direct comparability. Therefore, conclusions are made on the convergence of evidence from data on different indicators.
- 4) **Reliability of data on informal food systems and trade:** It is difficult to obtain precise data on informal food systems including subsistence farming and informal trade, which has also been a challenge for this study.

Section B

Recent Trends and the Current Situation

This section begins with a presentation of the “Big Picture” on food security and nutrition, highlighting Nepal’s position relative to the global and regional context, and outlining trends over the past two decades. This is then followed by the presentation of the household food security situation, including household-level food consumption based on the analysis of most recent data from the Nepal Living Standards Survey (NLSS) and the overall nutrition situation at the national level.

The last chapters provide a deep dive into the variability of the situation within the country by province, rural and urban locations, gender and ethnicity.





Nepal's Journey Towards Zero Hunger: The Big Picture

Summary

- Nepal has made significant progress in the last few decades in reducing hunger and malnutrition. In 2025, with a Global Hunger Index score of 14.8 (medium level) and the prevalence of undernourishment at 4.8 percent, Nepal's situation is better than the global average and most South Asian countries.
- Between 2001 and 2022, there has been a significant improvement in nutrition, with the prevalence of child stunting going down from 57 to 25 percent, underweight from 48.3 to 18.7 percent and wasting from 11 to 8 percent.
- Anaemia is at concerning level with a prevalence of 43.4 percent in children aged 6-59 months and 34 percent in women of reproductive age (15-59 years).
- With increasing prevalence of overweight and obesity, Nepal is now confronting a triple burden of malnutrition which are undernutrition, obesity and micronutrient deficiency.

This chapter provides a broad overview of the current situation of food security and nutrition in Nepal, and the progress made in the last two decades towards reducing hunger and malnutrition, by comparing with the global and regional trends.

Global Hunger Index (GHI)

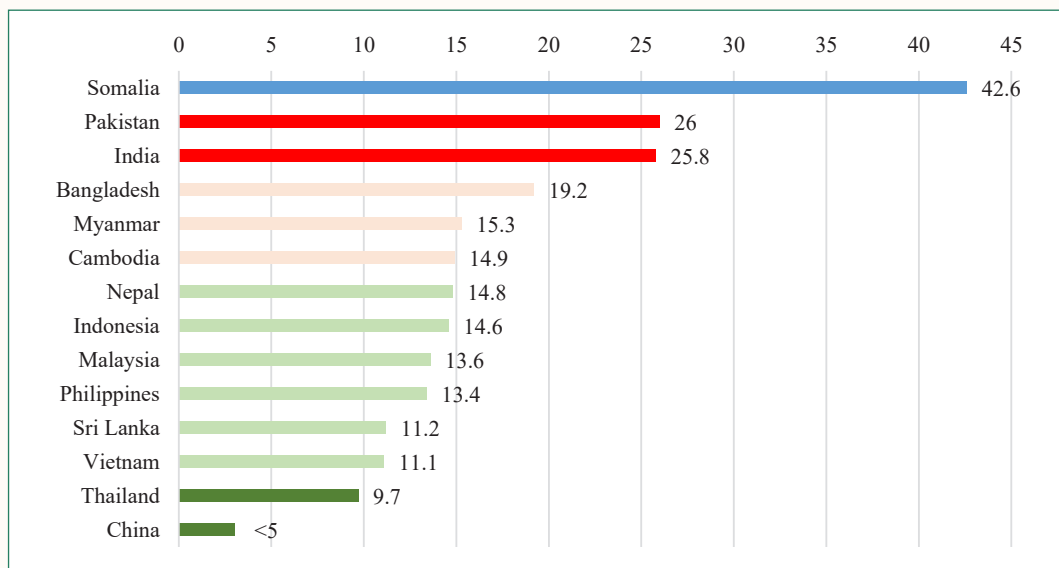
As per the Global Hunger Report 2025, Nepal with a global hunger index score of 14.8, has a moderate level of hunger, ranking 72nd among the 127 countries for which the GHI scores are available.

Nepal is one of the six countries (Bangladesh, Chad, Djibouti, Lao PDR, Mozambique, Nepal and Timor Leste) that have shown remarkable progress in combating hunger since 2016, as per the Global Hunger Report 2024. Similarly, Nepal is also one of the countries with the most remarkable progress since 2000.

Nepal's GHI score is better than that of most South Asian countries except Sri Lanka and better than that of several countries in Southeast Asia including Cambodia and Myanmar, while it is slightly worse than that of Indonesia and the Philippines (Figure 3.1). Nepal's GHI score is also better than the average global GHI score of 18.3. However, Nepal's hunger level is much higher than that of China, which has made stunning progress in eliminating extreme poverty and hunger. China's hunger is at a minimal level with a GHI value of less than 5.



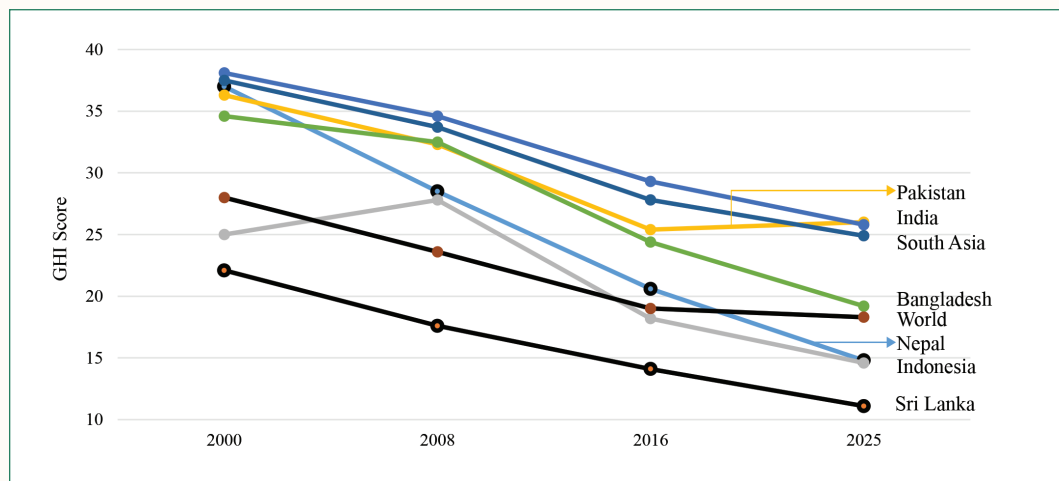
Figure 3.1: GHI scores of Nepal and selected other countries



Source: WHH et al. (2025)

Figure 3.2 illustrates the trend of Nepal's GHI scores in comparison to selected countries in South Asia, Southeast Asia and the World since 2000. Globally, southern Sub-Saharan Africa and South Asia are the two regions with the highest level of average hunger in 2024 with GHI scores of 26.8 and 26.2 respectively.

Figure 3.2: GHI score trends since 2000: Nepal, selected other countries, South Asia and World

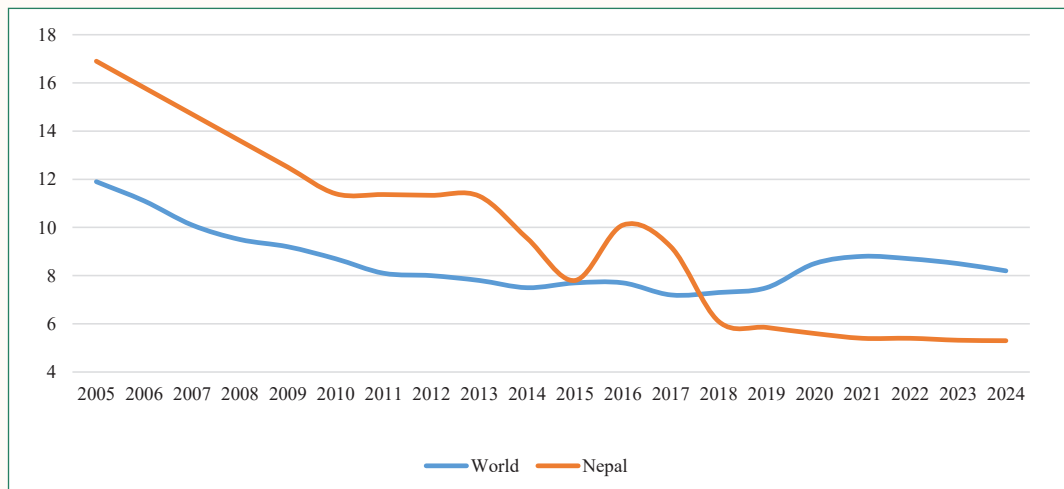




Prevalence of Undernourishment

Hunger in the world, expressed in terms of prevalence of undernourishment (PoU), increased significantly as a result of the COVID-19 pandemic. The situation has improved somewhat after 2021, but the level remains higher than the pre-pandemic level. As per the mid-range estimates from the latest SOFI report, there were 673 million people or 8.2 percent of the global population suffering from hunger in 2024 (Figure 3.3) (FAO et al, 2025). Undernourishment in Nepal, at 5.3 percent, is lower than the global average, and looking at the trends, the country has made significant improvements in the past two decades.

Figure 3.3: Prevalence of undernourishment (percentage) in the world and in Nepal (2005-2024)

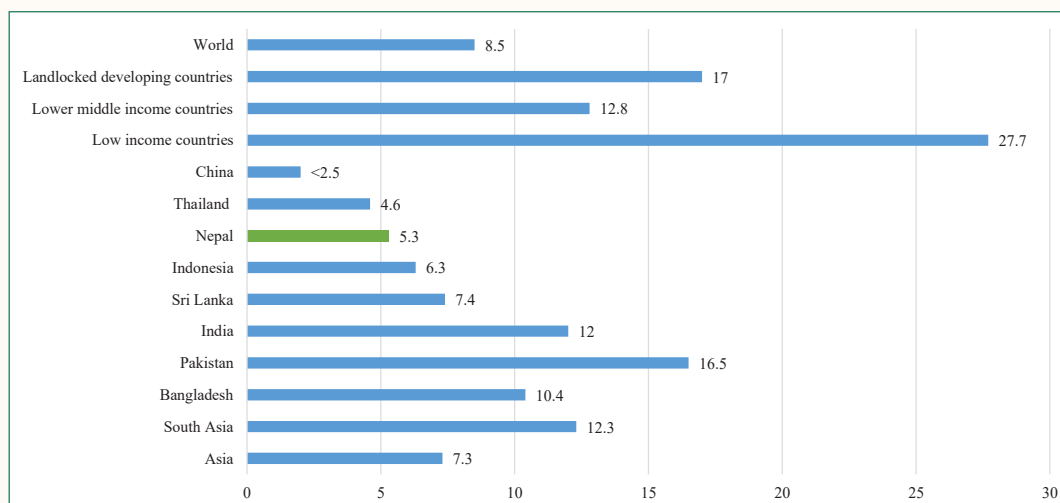


Source: Derived from various issues of SOFI reports

The undernourishment level in Nepal is lower than in most countries in South Asia and is now comparable to some countries in Southeast Asia (Figure 3.4) and the improvement in the situation in Nepal over the past two decades has been quite remarkable compared to other countries (Figure 3.5).

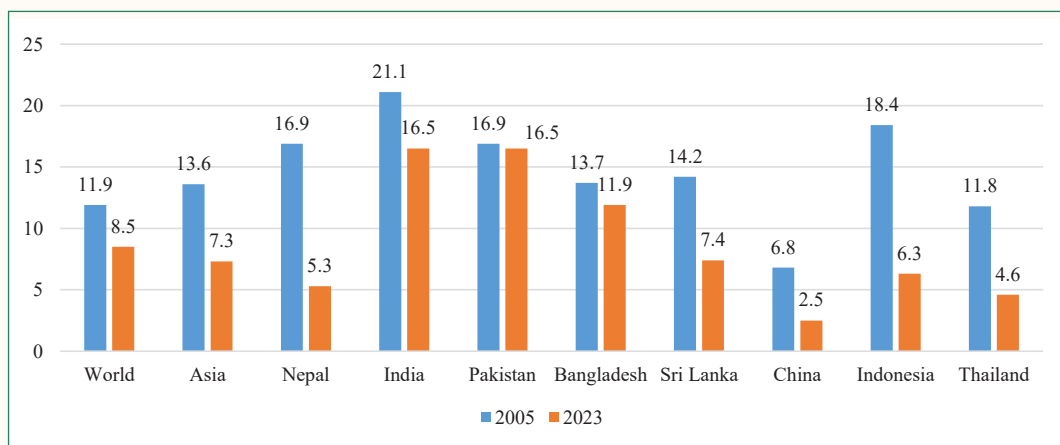


Figure 3.4: Prevalence of undernourishment (percentage) in Nepal and selected other countries and regions



Source: SOFI (2025)

Figure 3.5: Change in the prevalence of undernourishment (percentage) between 2005 and 2023: Nepal, selected other countries and the world



Source: FAO et al. (2025)

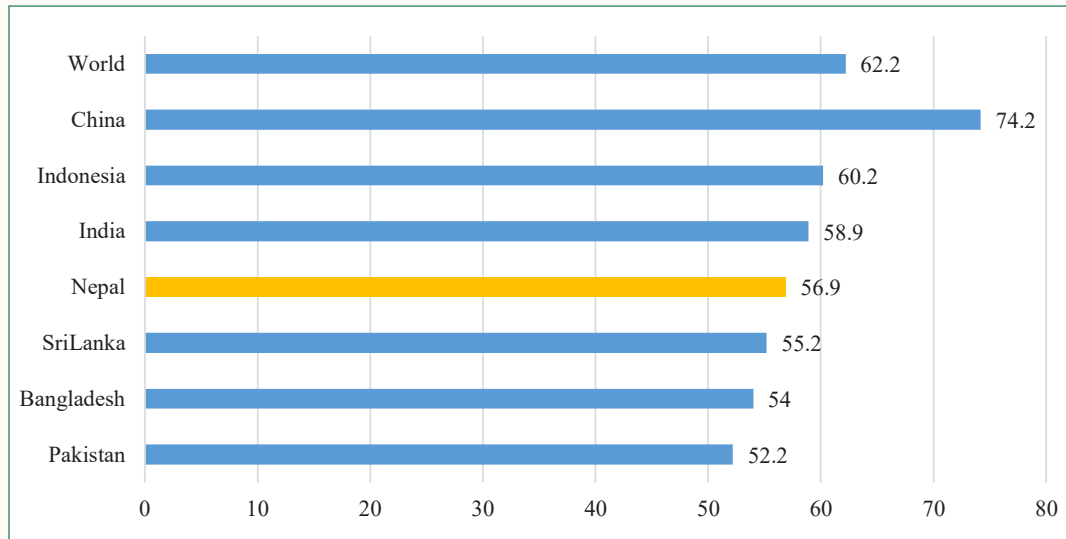
Global Food Security Index

As per the Global Food Security Index (GFSI) in 2022, Nepal ranks 74th among 113 countries for which the scores are available with a GFSI value of 56.9, representing a



moderate score. The average score for all 113 countries is 62.2. Compared to the South Asian countries, Nepal's situation is better than Pakistan (52.2), Bangladesh (54.0) and Sri Lanka (55.2) while India scores (58.9) slightly better than that of Nepal. China (74.2), as with the GHI score, is much better than South Asian countries and the global average (Figure 3.6).

Figure 3.6: Global food security index, 2022: Nepal, world and selected other countries

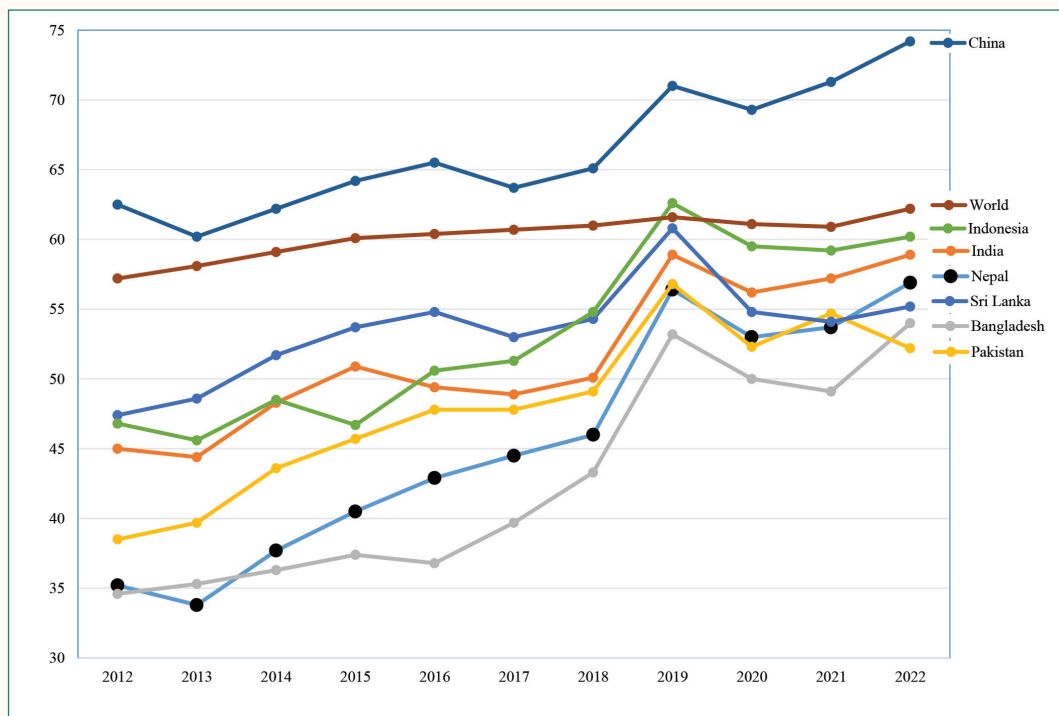


Source: *Economist Impact* (2022)

As reflected by improvements in other scores, Nepal's recent progress in the GFSI is equally remarkable. With an increase of 11.4 in the overall score, Nepal has been the eighth country globally with the biggest improvement in the food security index score between 2012 and 2022 (Figure 3.7). A consistent pattern of improvement has been observed until 2019, followed by a slight deterioration in 2020 due to the impact of COVID-19 pandemic, and then a quick recovery with the index in 2022 reaching a level slightly higher than that of 2019. The situation is expected to improve further for the subsequent years, though reports are not yet available for after 2022. If this trend continues, Nepal is likely to catch up with the global average in a few years.



Figure 3.7: Trends of global food security index since 2012: World, Nepal and selected other countries



Source: GFSI (2022)

Nutrition Trends

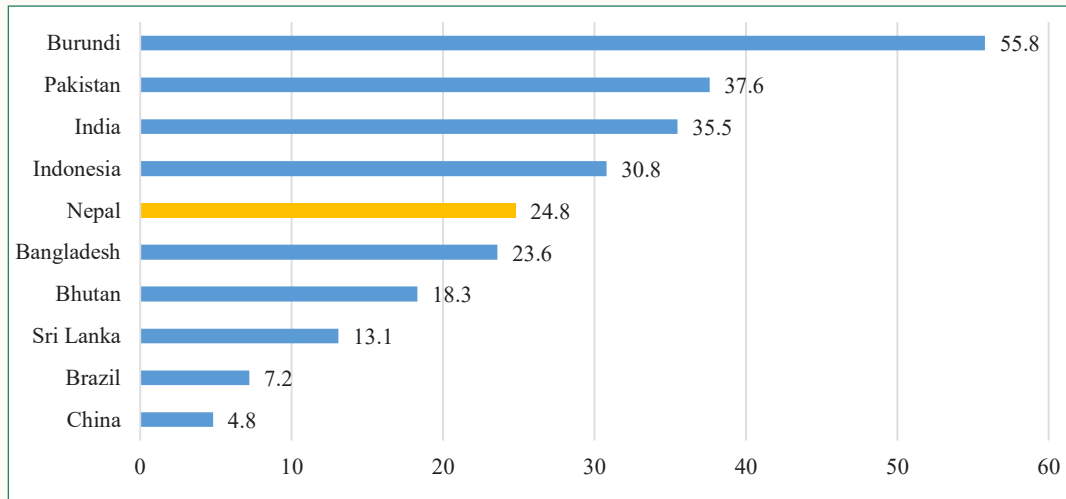
In line with the trends of progress in reducing hunger and food security, a significant progress has been seen in Nepal in reducing malnutrition in the last few decades, as evident from the data from various nationally representative surveys discussed below.

Stunting, underweight and wasting

As per the NDHS 2022, some 25 percent of children under the age of five in Nepal are stunted, meaning they are too short for their age. Similarly, 19 percent of children are underweight, while 8 percent are wasted (too thin for their height). Stunting is a result of chronic malnutrition while wasting is a manifestation of acute malnutrition. As per the available data in 2023, globally, Burundi has the highest stunting rate of 55.8 percent. In South Asia, Nepal's situation is better than that of India and Pakistan, while Bhutan and Bangladesh are better off than Nepal (Figure 3.8). China, as with other indicators, fares much better than countries in South Asia.



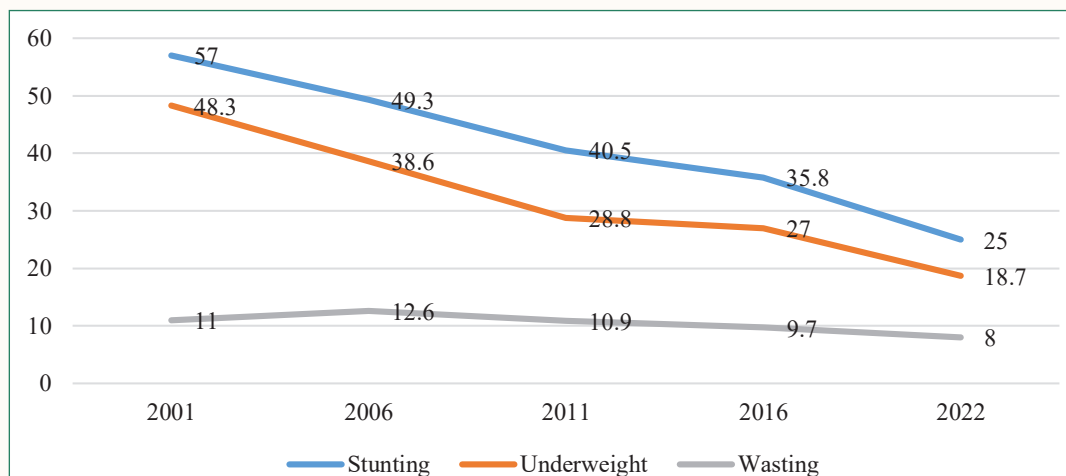
Figure 3.8: Stunting in Nepal and selected other countries



Source: von Grebmer, K. et al. (2023)

Significant improvements in nutrition have been recorded in the last two decades, particularly in reducing stunting. The prevalence of stunting has come down from 57 percent in 2001 to 25 percent in 2022, but the fact that one in four children under the age of five are stunted, remains a major concern. During the same period, prevalence of underweight has decreased from 48 to 19 percent (Figure 3.9).

Figure 3.9: Percentage of children under the age of five who are malnourished



Source: MoHP et al. (2023)



Micronutrient Deficiency

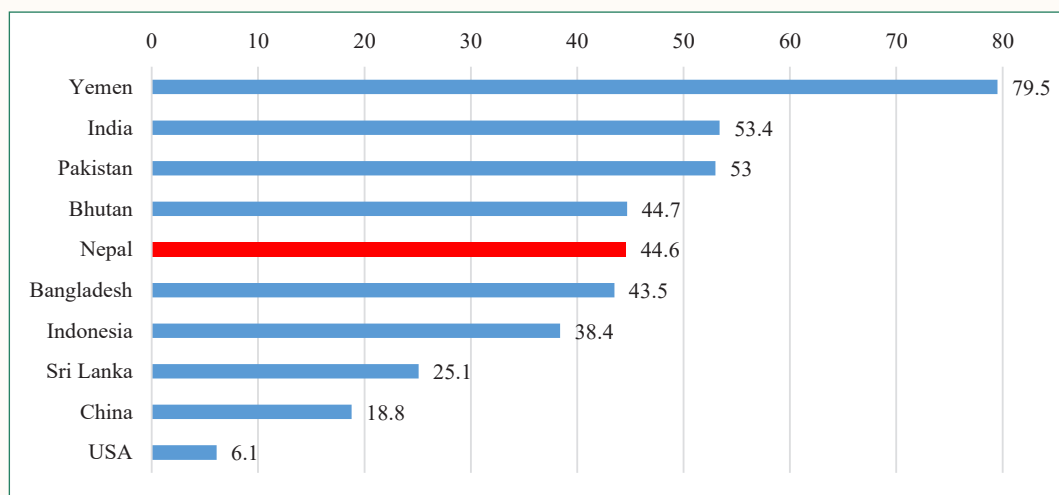
Micronutrients are vitamins and minerals needed by the body in small amounts, but they play an important role for normal growth and development. Deficiency in any of them can cause severe and even life-threatening conditions. Deficiencies in iron, vitamin A and iodine, particularly in children and women of reproductive age, are of special concern in low-and middle-income countries.

Micronutrient deficiency (MND) is a global challenge to health, and particularly in less developed countries like Nepal. Micronutrient deficiencies adversely impact the health of vulnerable populations like women and children and thus have important implications on the nutrition situation of the country. MNDs are primarily caused by poor diet with inadequate nutrient intake, inadequate health care and poor care practices (Bhandari & Banjara, 2015).

Anaemia in children and women

As per the NDHS (2022), 43.4 percent of children (6-59 months) in Nepal were anaemic. By comparison, as per the 2019 data, Bhutan (44.7%), Pakistan (53%) and India (53%) were found to have higher prevalence of anaemia, while Bangladesh and Sri Lanka had lower (Figure 3.10). Globally, Yemen has the highest prevalence (almost 80%), and the USA has the lowest (6%).

Figure 3.10: Prevalence of anaemia in children (6-59 months) in Nepal and selected countries in 2019

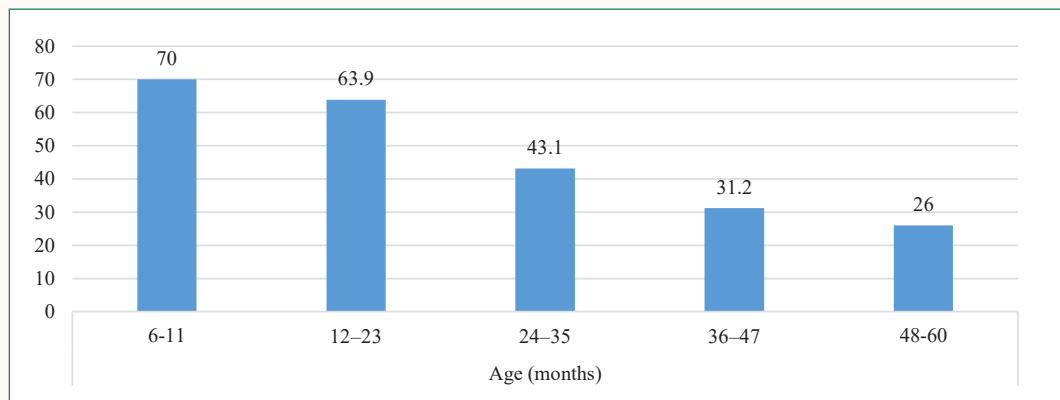


Source: WHO (n.d), as cited in Index Mundi (n.d.)



As can be seen in Figure 3.11, the prevalence of anaemia in children is very high in the first year after a child is born (70 percent during 6-11 months), and then gradually decreases as the child grows older.

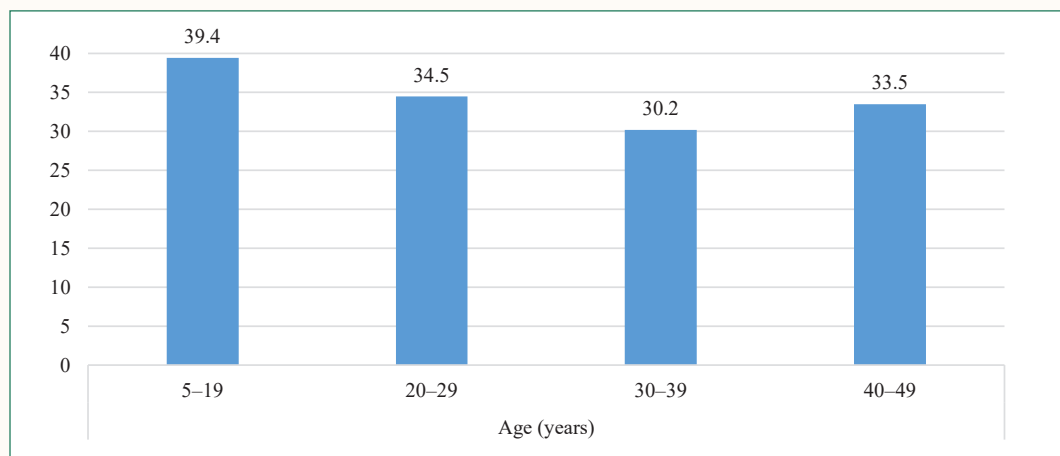
Figure 3.11: Prevalence of anaemia in children by age



Source: MoHP et al. (2022)

Among women of reproductive age (15-49 years), the prevalence of anaemia was 34 percent in 2022. The prevalence is most pronounced, at 40 percent, for women aged 5-19, while it is 30-35 percent among those 20 years or older. Evidence from around the world (such as Engidaw et al., 2022) shows that anaemia of women, particularly during pregnancy, is likely to result in the low birth weight as well as anaemia in the new-born.

Figure 3.12: Prevalence of anaemia in women (15-49 years) by age



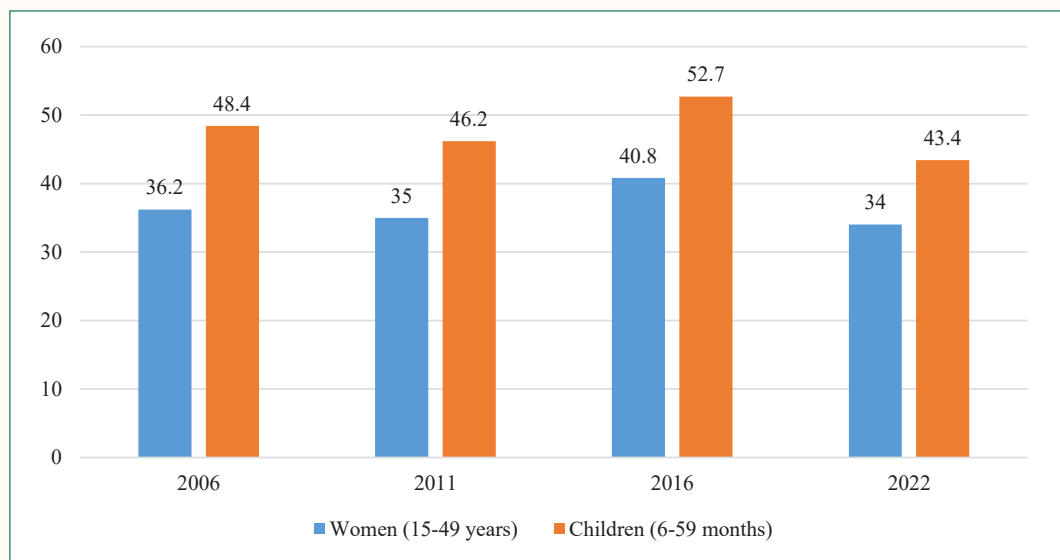
Source: MoHP et al. (2022)



Trends in the prevalence of anaemia

Over the past few decades, it seems that no significant progress has been achieved in reducing anaemia in the country (Fig. 3.13).

Figure 3.13: Prevalence of anaemia in women and children (2006-2022)



Source: MoHP et al. (2022)

Adult Overweight and the Triple Burden of Malnutrition

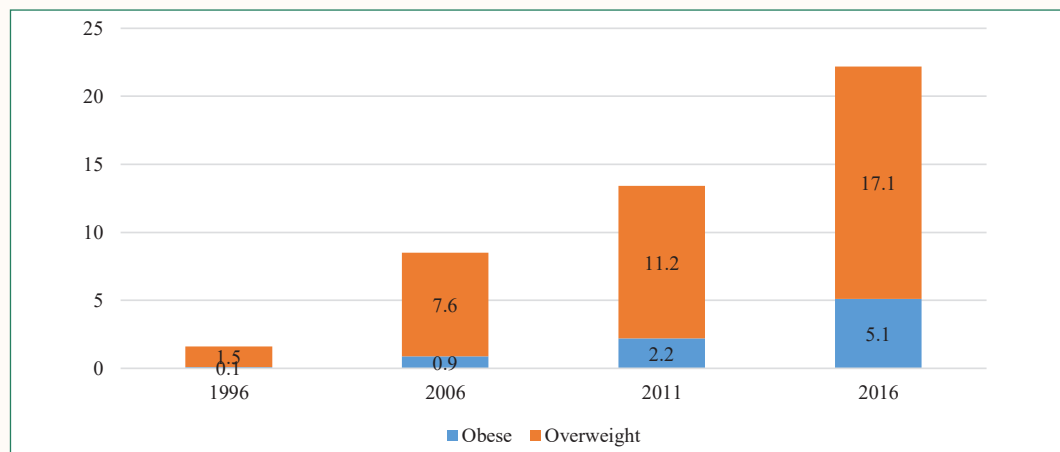
While there is a significant population suffering from undernutrition and chronic malnutrition, on the other end of the scale, there is also a growing prevalence of overweight (BMI² > 25.0) and obesity (BMI > 30.0) in the population, both in Nepal and globally.

Overweight and obesity were very insignificant in Nepal in the past while undernutrition was a major problem. However, an increasing trend has been observed in the past few decades. Using data from NDHS, Figure 3.14 captures this trend for women (15-49 years) until 2016, and as per the latest comparable data available globally, 7.2 percent of the adult population in Nepal is obese while 26.1 are overweight, clearly showing that it is now at a concerning level. Increased consumption of food, unhealthy consumption habits including the ubiquity of junk food and sedentary lifestyle of significant populations have contributed to this situation.

2. BMI or Body Mass Index is a measure of body weight relative to height, calculated as a person's weight (kg) divided by the square of height (meters).



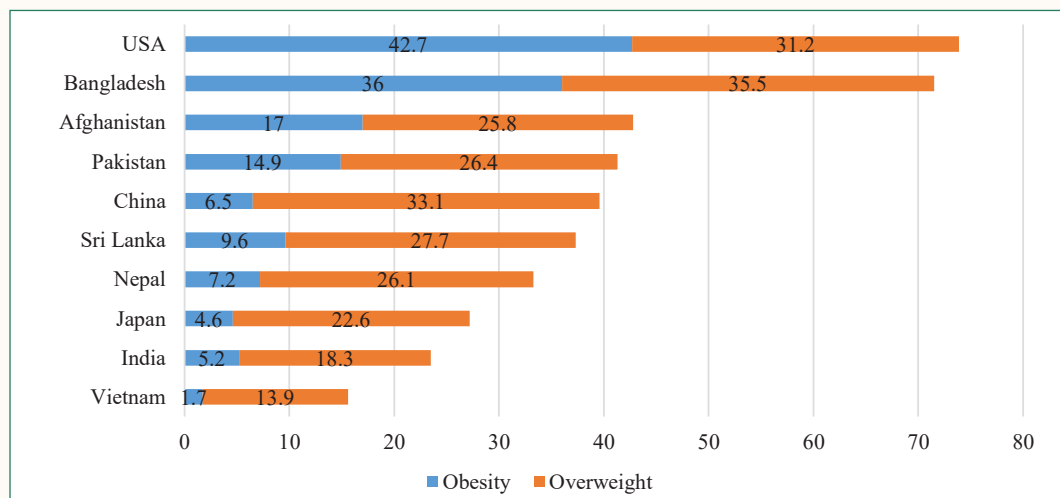
Figure 3.14: Prevalence of obesity and overweight in women aged (15-49)



Source: MoH et al. (2017)

The situation in Nepal is worse than Japan, India or Vietnam, while the obesity levels in Bangladesh, Afghanistan, Pakistan and China are higher than in Nepal (Figure 3.15). The USA has the highest prevalence of obesity globally. What can be implied from this is that even with higher levels of wealth, the problem of obesity and overweight may be managed relatively well with good food habits and lifestyle, while the severity of the problem can be high even in poor countries with unhealthy food habits and lifestyle.

Figure 3.15: Prevalence of obesity and overweight in Nepal and selected other countries



Source: World Obesity (n.d.)



As per the latest issue of the Lancet, with the current trends, almost every second person in Nepal is likely to be obese or overweight by 2050, with a projected prevalence of 8 percent. Estimated prevalence rates for India, Bangladesh, Pakistan and Japan are 39.4 percent, 62.4 percent, 68.7 percent and 33.1 percent respectively (Ng et al., 2025).

Obesity and Overweight (OAO) can have significant negative health implications and has been the major cause of increasing non-communicable diseases (NCD), particularly diabetes, cardiovascular diseases and cancer, in many countries including Nepal, posing challenges in terms of health services and associated costs. OAO is now recognized as a major health crisis and a real threat to the global health progress. Beyond adverse health outcomes, there are also significant economic ramifications of OAO. The economic impact of OAO in 2019 was estimated to be 2.19 percent of the global gross domestic product (GDP) and if the current trend continues, by 2060, these are projected to rise to 3.29 percent of GDP globally. The biggest increase will be concentrated in lower resource countries with total economic costs increasing by fourfold between 2019 and 2060 in high income countries, whereas they will increase 12-25 times in low and middle-income countries (Okunogbe, 2022).

Nepal, like many developing countries, is thus facing the triple burden of malnutrition, comprising undernutrition, over nutrition or obesity, and micronutrient deficiency among individuals in the population.

4

Household Food Security: National Overview

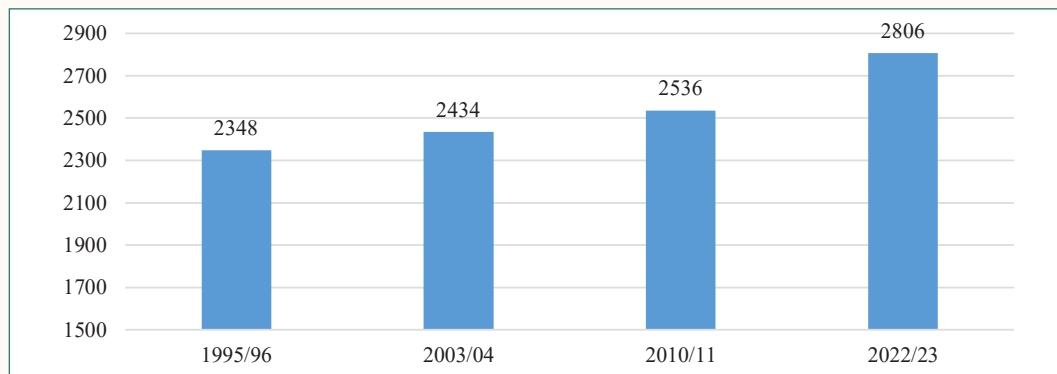
Summary

- Average caloric consumption by an individual was estimated to be 2,806 Kcal per day in 2022/23, an increase from 2,536 Kcal per day in 2010/11, higher than the requirement of 2,236 Kcal per day. However, 28.8 percent of the population were consuming calories less than the threshold in 2022/23; this value was 38 percent in 2010/11.
- 15.6 percent of households had inadequate food consumption in 2024, as per WFP's food consumption score based on their national survey.
- 56 percent of the total calories consumed by households in 2022/23 is from cereals, while 12 percent is from oil and fats, 6 percent from pulses, 5 percent from milk, 5 percent from ready-to-eat food and the rest from others. This is a very significant change compared to 2003/04, when an average household obtained 81 percent of its calories from cereals, 6 percent from oil and fats, three percent each from pulses and milk, 2 percent each from sweets and tubers and the rest from others.

Caloric Consumption

Average caloric consumption by the population in Nepal has been increasing over time (Figure 4.1). As per the latest wave of NLSS conducted in 2022-23 (NLSS IV), on average, an individual in Nepal consumes 2,806 Kcal per day, which is 458 Kcal higher compared to that in 1995/96, and significantly higher than in the previous rounds of the survey.

Figure 4.1: Mean caloric intake (Kcal per capita per day): Trends since 1995/96



Source: NSO (2024)

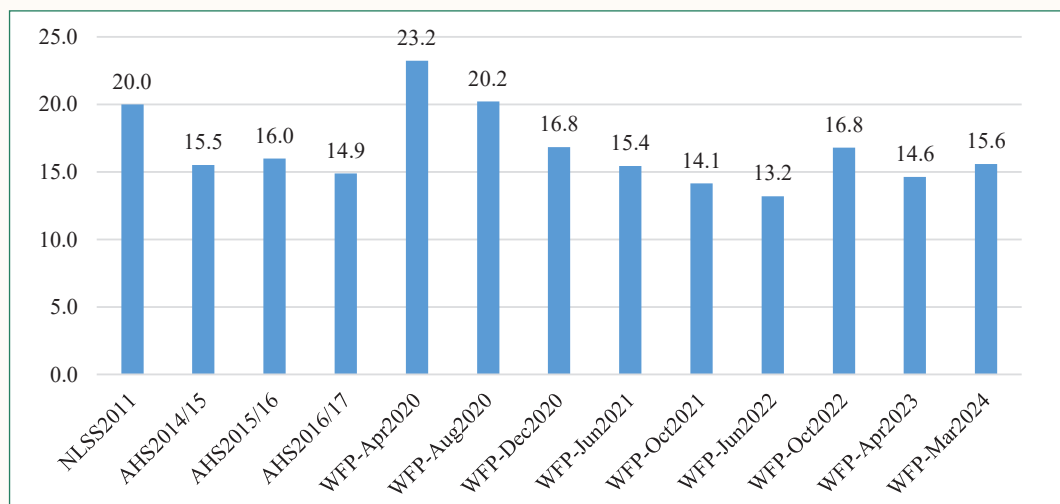


Considering 2,236 Kcal is the mean caloric requirement for a healthy living for an average person in Nepal, around 28.8 percent of the population in Nepal is consuming calories less than this recommended threshold. This has been an improvement compared to 2010/11 when 38 percent of the population consumed less calories than the threshold (CBS, 2013; NSO, 2024).

Adequacy of Consumption as Measured by Food Consumption Score

A nationwide household survey conducted in March 2024 by WFP (2024) revealed that 86 percent of households in Nepal had acceptable food consumption while 2.2 percent had poor consumption and 13.4 percent were in the border line category. Looking at the past results of similar household surveys by WFP, the proportion of households with inadequate consumption shows some decreasing trend since 2011, with a spike during the COVID-19 period of 2020, and has been in the decreasing trend since then. (Figure 4.2).

Figure 4.2: Percentage of households with inadequate food consumption as measured by the food consumption score



Source: WFP (2024)

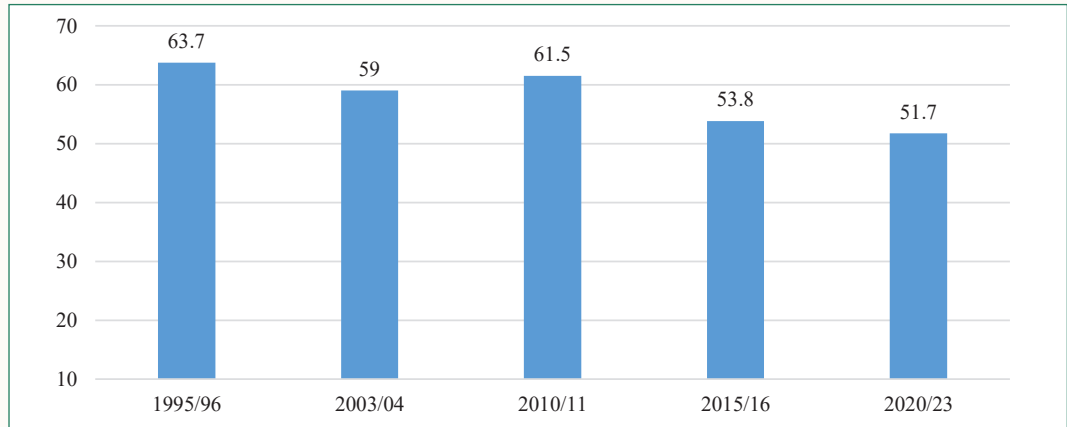
Expenditure on food

The percentage of total monthly expenditure spent on food serves as one of the reliable indicators of household food security. Although the share of household expenditure on food has declined in recent decades, it remains substantial, with an average household spending



51.7 percent of its total expenditure on food in 2022/23, as per the analysis of NLSS data (Figure 4.3).

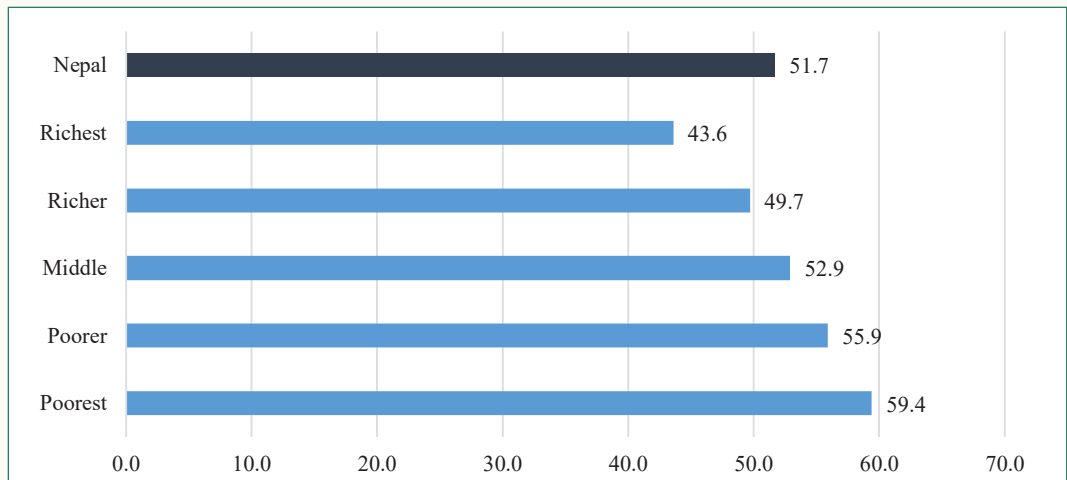
Figure 4.3: Share (percentage) of expenditure on food of the households: Trends since 1995/96



Source: NSO (2024)

The share of expenditure on food is much higher for the poor compared to the non-poor. In 2022/23, households from the poorest wealth quintile were found to spend almost 60 percent of their monthly expenditure on food, while this proportion was 44 percent for the richest quintile (Figure 4.4).

Figure 4.4: Share of household expenditure on food by wealth quintile in 2022/23 (Based on analysis of NLSS IV data)





Consumption of Different Food Groups and Items

With increasing caloric consumption, there has also been a marked improvement towards more nutritious and diverse food consumption in the past few decades. Cereals have been the main source of calories for the population in Nepal, with rice the most preferred staple. As per the NLSS IV, an average Nepali consumes 410 kg of food inside the household per year in 2022/23, of which 136 kg (33.1%) is cereal (102 kg of rice alone). About 80 kg of vegetables (19.6%), 53 kg of milk (13.1%), 28.7 kg of tubers (7%), 27.6 kg of fruits (6.7%), 18.2 kg of meats and fish (4.4%) and 15.2 kg of pulses (3.7%) make up the rest of the average food bundle (Table 4.1, Figure 4.5).

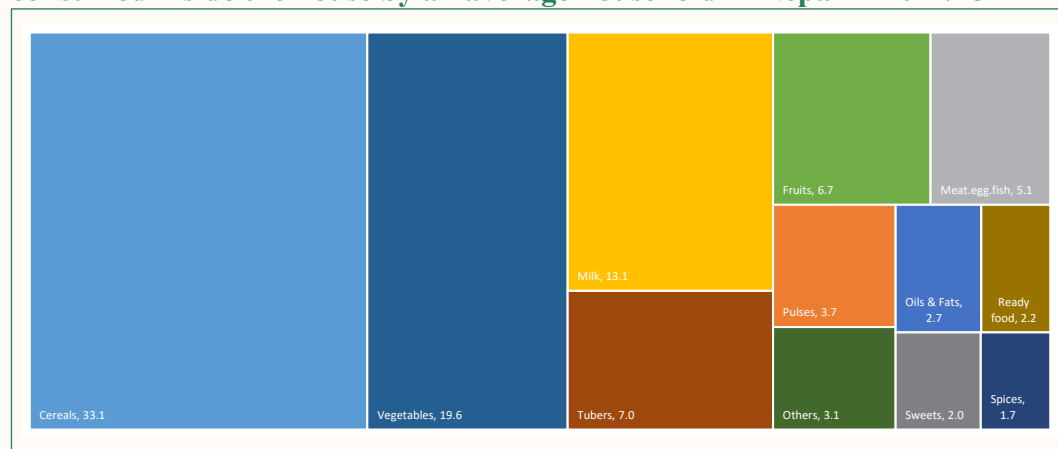
Table 4.1: Food quantity consumed (kg/person/year), caloric consumption (Kcal/person/day), and its share (%) by major food group

Food Group	Quantity (kg/year)	Quantity (%)	Kcal Per Capita/Day	Kcal Consumption (%)
Cereals	136.0	33.1	1272.8	55.7
Pulses	15.2	3.7	142.9	6.3
Meat & Fish	18.2	4.4	62.4	2.7
Eggs	2.8	0.7	12.9	0.5
Milk	53	13.1	104.8	4.6
Oils & Fats	11.0	2.7	271.0	11.9
Fruits	27.6	6.7	45.1	2.0
Vegetables	80.3	19.6	72.7	3.2
Tubers (Potatoes)	28.7	7.0	62.1	2.7
Sweets	8.3	2.0	89.4	3.9
Salt	3.1	0.7	0	0
Spices	6.8	1.7	42.7	1.9
Tea & Coffee	0.7	0.2	0	0
Bottled Water	0.7	0.2	0	0
Non-alcoholic beverages	5.1	1.2	4.4	0.2
Alcoholic beverages	3.1	0.7	4.2	0.2
Readymade food	8.9	2.2	98.1	4.3
Total	410.4	100	2285.5	100

Source: Analysis based on NLSS-IV data



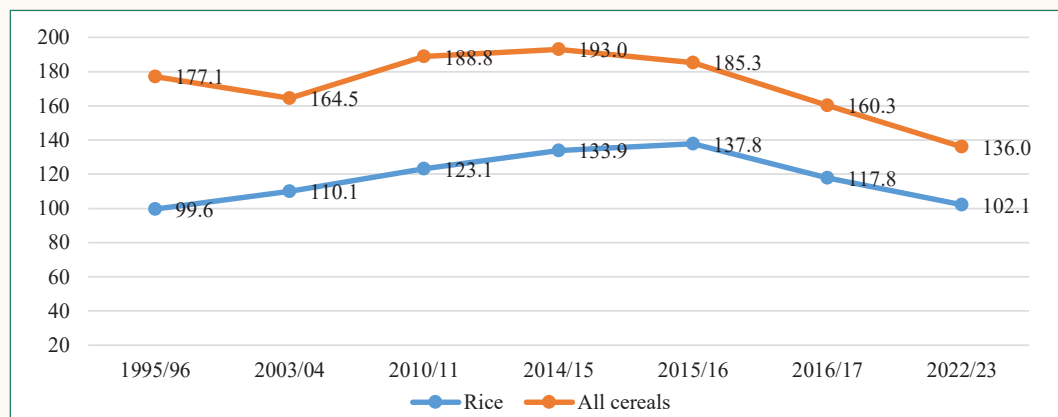
Figure 4.5: Share (percentage) of food groups out of total quantity (kg/year) consumed inside the house by an average household in Nepal in 2022/23



Source: Analysis based on NLSS IV

The analysis also shows a significant change in the consumption of different food groups, and hence resulting in subsequent changes also in their share in the caloric intake in the past twenty years. While the annual consumption of cereals had been increasing until 2015/16, there is some decreasing trend since then (Figure 4.6). On the other hand, the consumption of animal protein has increased significantly over time, as shown in the trends of egg, meat and fish consumption in Figure 4.7.

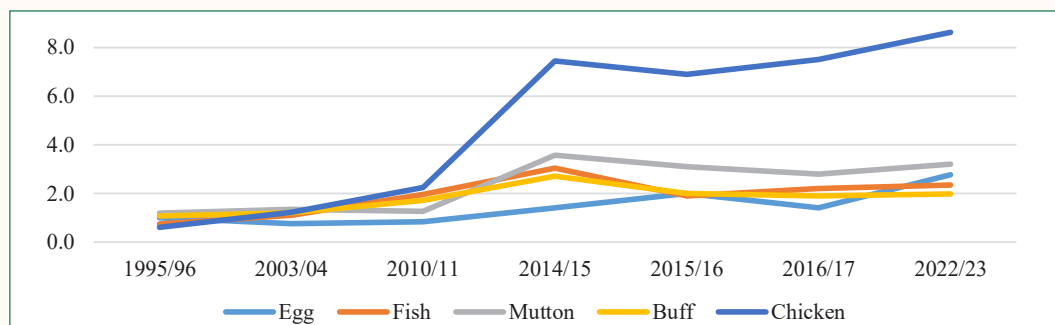
Figure 4.6: Trends in the average per capita annual consumption of cereals (kg) and rice



Source: Based on the analysis of NLSS data 1995/96, 2003/04, 2010/11 and 2022/23; Annual Household Survey data for 2014/15, 2015/16 and 2016/17 from NSO



Figure 4.7: Trends of annual per capita consumption (kg) of eggs, fish and meat

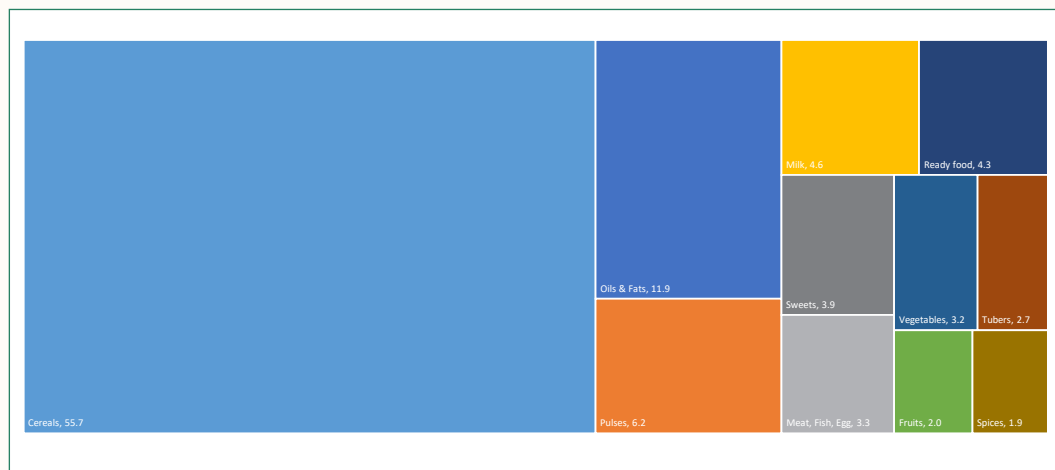


Source: Based on the analysis of NLSS and AHS data

Similarly, in 2022/23, out of the total food consumed, around 14.4 percent is consumed outside of the home on average. Taken together with the average at-home consumption, an average Nepali consumes a total of about 479 kg of food items per year, which includes 159 kg of cereals, 94 kg of vegetables, 65 kg of milk, 34 kg of tuber, 32 kg fruits, 21 kg meat and fish and 18 kg pulses.

As for the composition of calories consumed, 54 percent of the total calories consumed by individuals in 2022/23 is from cereals, while 12 percent is from oil and fats, 6 percent from pulses, 5 percent from milk, 5 percent from ready to eat food and the rest from others. (Figure 4.8).

Figure 4.8: Share of caloric intake from different food groups for an average household in Nepal in 2022/23



Source: Based on the analysis of NLSS IV data



This is a very significant change compared to 2003/04 when an average individual obtained 81 percent of its calories from cereals, 6 percent from oil and fats, 3 percent each from pulses and milk, 2 percent each from sweets and tubers, and the rest from others (Figure 4.9).

Figure 4.9: Share of caloric intake from different food groups for an average individual in Nepal in 2003/04



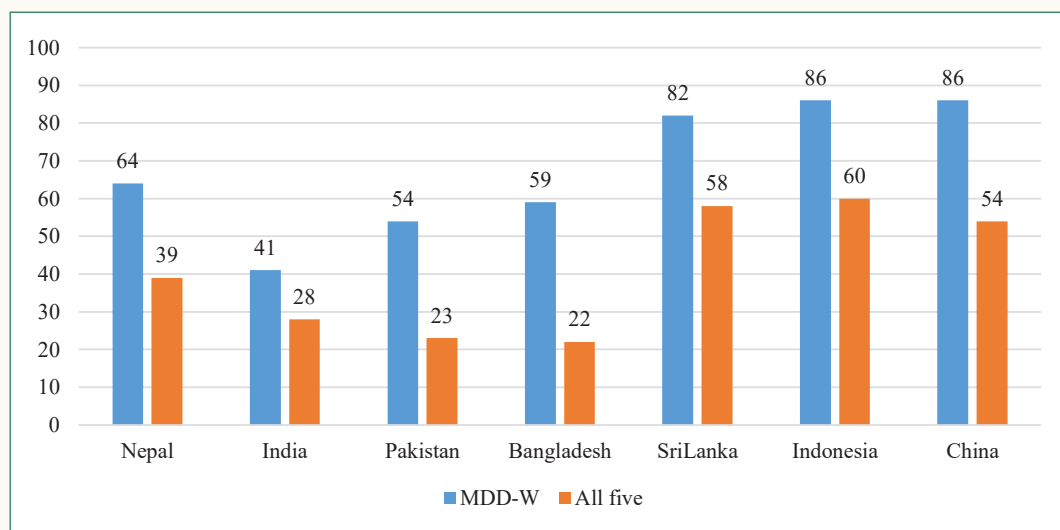
V=Vegetable

Source: Based on the analysis of NLSS IV data

The improved consumption of different food items is also reflected in better dietary diversity. For example, 64 percent of women in Nepal had a minimum dietary diversity required for a healthy living in 2021, while this proportion was 41 percent for India, 54 percent for Pakistan and 59 percent in Bangladesh (Figure 4.10). Similarly, the proportion of population who consumed all-five food groups (fruits, vegetables, pulses, nuts, or seeds, animal-source foods and starchy staples) is also higher in Nepal compared to India, Pakistan and Bangladesh. Countries like Sri Lanka and China fare much better.



Figure 4.10: Minimum dietary diversity for women (MDD-W) and share (percentage) of population who consumed all five food groups



Source: Global Diet Quality Project (2022), <https://www.dietquality.org/countries>

Food Security and Nutrition at the Provincial Level

Summary

- Lumbini Province has the highest prevalence (38%) of the population consuming calories less than the recommended daily threshold of 2,236 Kcal, followed by Sudurpaschim (33%), while Gandaki has the lowest prevalence (21%), followed by Bagmati (22%).
- As per the CARI analysis by WFP based on a 2024 household survey, Karnali has the most severe household food security situation (23% of the households in moderately and severely food insecure category), followed by Madhesh (19%) and Sudurpaschim (16%).
- Karnali Province also has the highest prevalence of child stunting (35.8%), followed by Madhesh (29.3%) and Sudurpaschim (28.4%). In terms of child wasting, Lumbini has the most serious situation (16.2%) and thus should be an urgent priority for intervention, followed by Madhesh (10.1%). Madhesh, meanwhile, has the highest prevalence of underweight (26.8%), followed by Lumbini (23.3%).
- Anaemia in children and women of reproductive age is very concerning. Madhesh Pradesh has the highest prevalence of anaemia in women of reproductive age (15-49 years) and children (6-59 months) at 52.4 percent and 50.6 percent respectively, closely followed by Lumbini (44.4% and 48.9% respectively), and Sudurpaschim (27.3% and 45.4% respectively).

While there has been progress at the national level in reducing hunger and malnutrition, it should be noted that there is a significant variation in the situation within the country. This variation can be seen between different provinces, ecological zones, ethnicity, gender and socioeconomic situation.

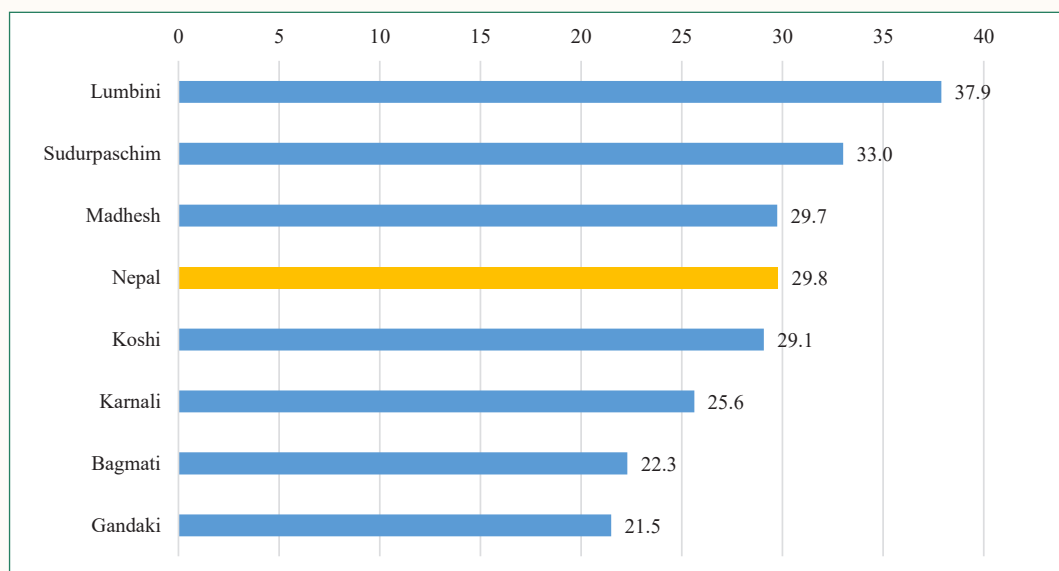
The analysis of the NLSS IV data reveals a significant difference in the proportion of people consuming calories below the recommended intake of 2,236 Kcal per person per day as shown in Figure 5.1. Lumbini Province has the highest prevalence (38%) of the population consuming calories less than the recommended threshold, followed by Sudurpaschim (33%), while Gandaki has the lowest prevalence (21%), followed by Bagmati (22%).

Karnali Province, which shows a high level of food insecurity in most analyses, has shown this prevalence of low caloric intake at 26 percent, which is higher than Bagmati and Gandaki, but lower than the national average (30%). One potential explanation for this is that the requirement of caloric consumption for a healthy living depends on several factors



including demographic composition, physical activity level and climatic condition, among others. In Karnali, due to the rugged topography, with little access to motorable roads, and high dependence on farming, people would require more calories for a healthy life than those living in other areas which are more urbanised, where the caloric requirement is less due to a relatively sedentary lifestyle involving less physical activity. The data presented here (Figure 5.1), based on the NLSS IV findings, assume a uniform threshold of 2,236 Kcal per person per day. However, if we consider the unique characteristics of Karnali, it can be inferred that the proportion of people with less than the required caloric consumption would be higher than this value, considering the actual calories required for those living in Karnali.

Figure 5.1: Proportion of population with caloric intake below the required threshold

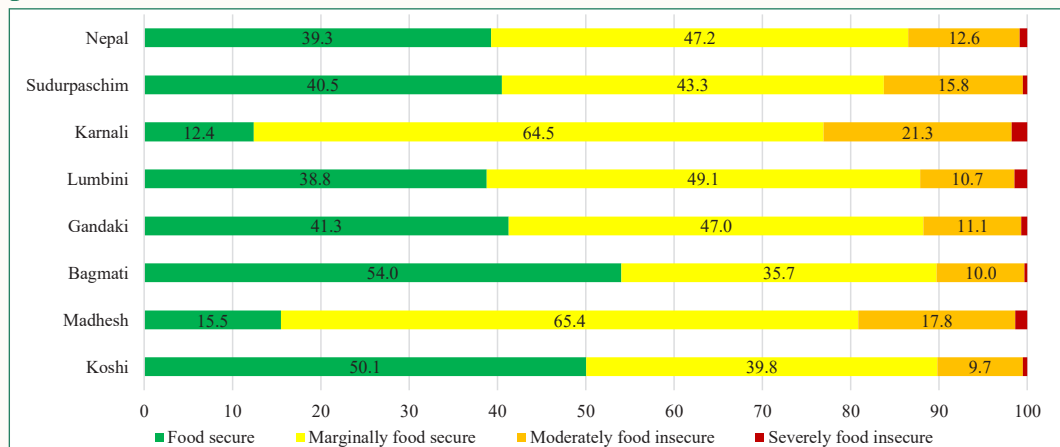


Source: Based on analysis of NLSS IV

As per the most recent nationwide household survey conducted by WFP (2024), Karnali has the most severe household food security situation (23% of the households in moderately and severely food insecure category), followed by Madhesh (19%) and Sudurpaschim (16%) (Figure 5.2).



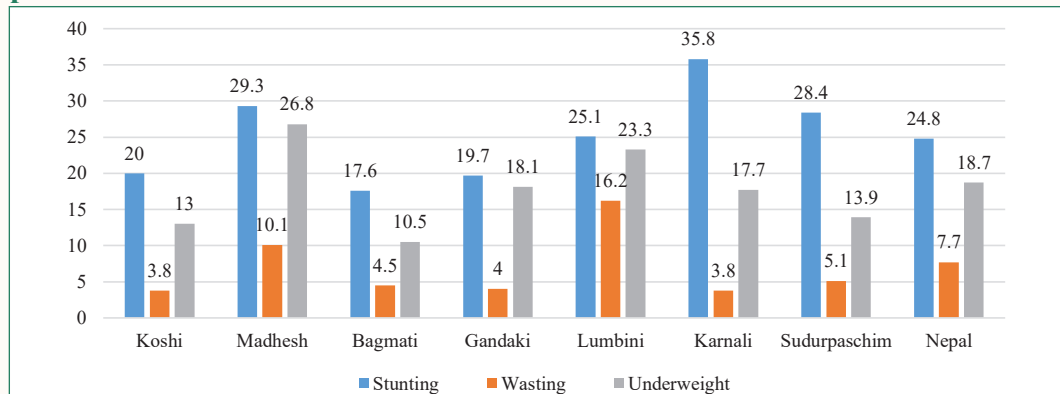
Figure 5.2: Percentage of households with different levels of food security by province



Source: WFP (2024)

Karnali also has the highest prevalence of child stunting (35.8%), a manifestation of chronic food insecurity, followed by Madhesh (29.3%) and Sudurpaschim (28.4%). In terms of child wasting, which is a manifestation of acute malnutrition, Lumbini has the most serious situation (16.2%) and thus should be an urgent priority³ for intervention, followed by Madhesh (10.1%). Madhesh also has the highest prevalence of underweight children (26.8%), followed by Lumbini (23.3%).

Figure 5.3: Prevalence of malnutrition of children under the age of five by province



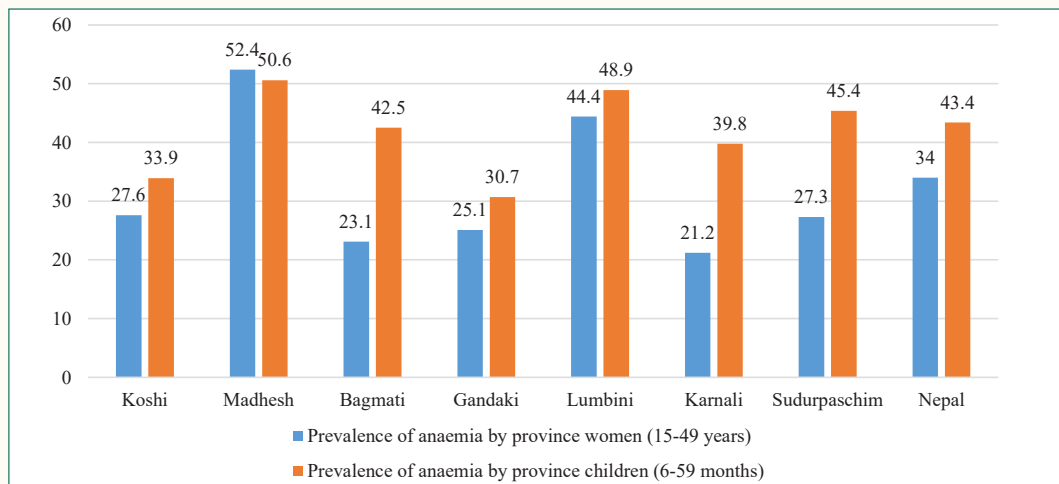
Source: MoHP et al. (2022)

- As per the WHO standards, child wasting above 15 percent should be considered an emergency requiring immediate intervention.



Madhesh Pradesh has the highest prevalence of anaemia in women of reproductive age (15-49 years) and children (6-59 months) at 52.4 percent and 50.6 percent respectively, closely followed by Lumbini (44.4% and 48.9%), and Sudurpaschim (27.3% and 45.4%) (Figure 5.4).

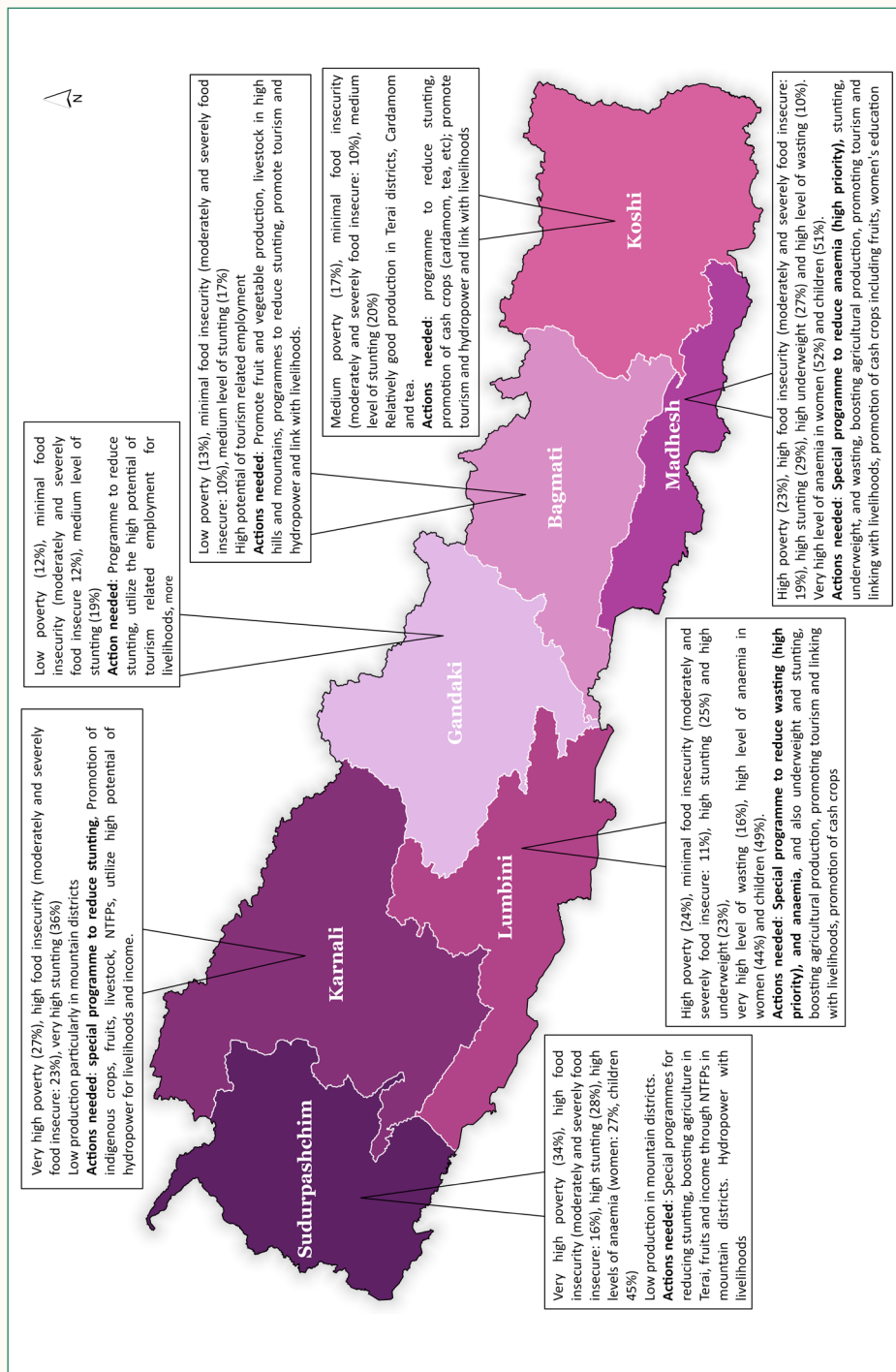
Figure 5.4: Prevalence of anaemia in women of reproductive age (15 to 49 years) and children (6 to 59 months) by province



Source: MoHP et al. (2022)



Figure 5.5: Key highlights of the food security and nutrition situation by province and the recommended priority actions



Note: Provincial figures are compiled from various sources



Urban and Rural Food Security

Summary

- As per the NLSS 2022-23, households in urban areas consume more calories (2,855 Kcal per capita per day) compared to those in rural areas (2,808 Kcal per capita per day). Among the urban areas, the estimated Kcal consumption is the highest among households in Kathmandu Valley (3,321 Kcal per capita per day).
- The prevalence of population consuming calories less than the threshold is lower in urban areas. Households in Kathmandu urban have the lowest prevalence of population with poor caloric consumption at 16 percent.
- The prevalence of stunting, underweight and wasting is also lower in urban areas than in rural areas.
- The vulnerability of urban populations was particularly observed during the COVID-19 pandemic with a significant spike in food insecurity levels.

Globally, and in Nepal, rural areas are relatively more prone to food insecurity than the urban areas, due to higher levels of poverty and challenges in accessing food. Thus, the focus of various food security and nutrition improvement programmes are mainly in rural areas. However, with the increasing urbanisation and the prevalence of urban poor in Nepal's many urban clusters, urban food insecurity is now being recognised as being of increasing concern, particularly in the aftermath of the COVID-19 pandemic.

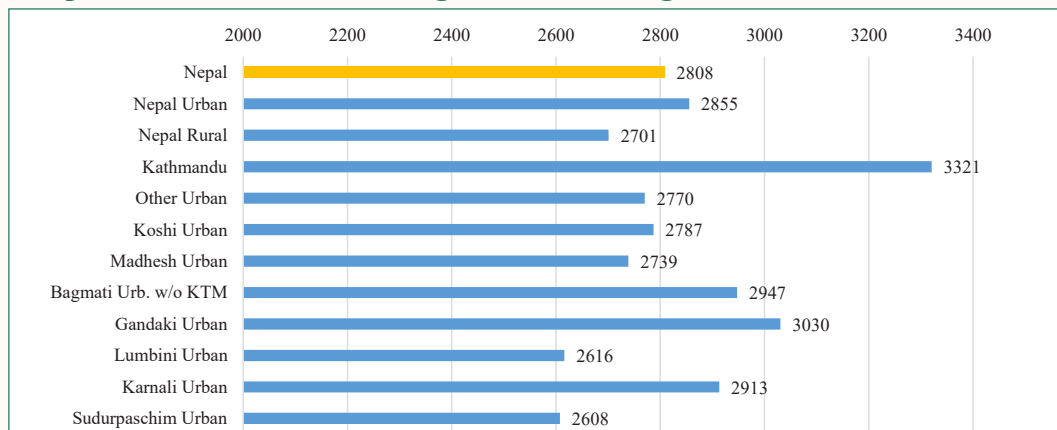
According to the Census 2021, 66.8 percent of the population in Nepal is now living in urban municipalities. This is a big increase from 2011, when some 17.1 percent lived in the classified urban areas. This is mainly due to the restructuring of local government after the new constitution, where most areas have been categorised as 'urban' municipalities, a decision more based on political restructuring rather than on available urban facilities. Further analysis by the NSO (2023), taking into account the distinct features of different wards, reveals that the urban population constitutes 27.1 percent of the total population, while the peri-urban population accounts for 39.7 percent. The remaining 33.2 percent comprises the rural population.

In terms of food consumption, analysis of NLSS 2022/23 revealed that, overall, households in urban areas are consuming more calories (2,855 Kcal per capita per day) compared to those in rural areas (2,808 Kcal per capita per day). Among the urban areas, caloric



consumption among households in Kathmandu Valley is particularly high at 3,321 Kcal per capita per day (Figure 6.1). The high caloric consumption and sedentary lifestyles prevalent in urban areas are now a cause for concern contributing to the significant rise in obesity and non-communicable diseases in Nepal.

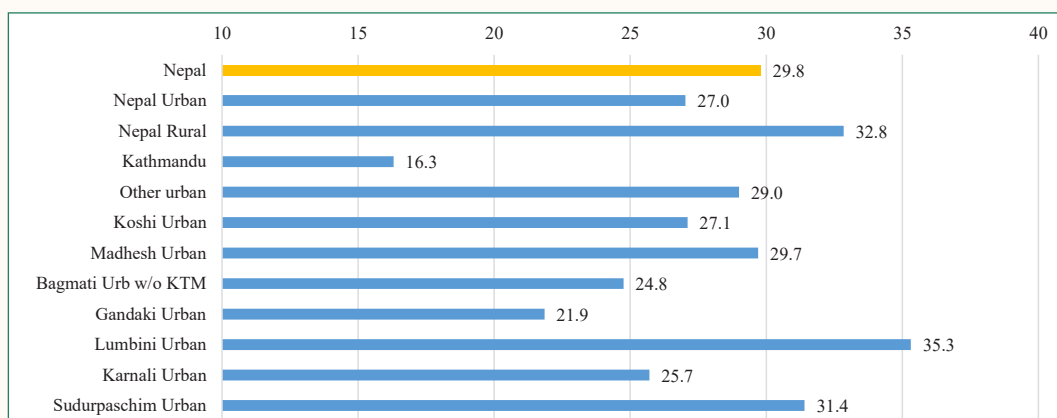
Figure 6.1: Mean caloric consumption (Kcal) per capita per day in urban areas compared to the national average and the average for rural area



Source: Analysis based on NLSS IV

Overall, 32.8 percent of the rural population in Nepal were found to be consuming Kcal less than the threshold Kcal, while this figure was 27 percent in urban areas. Kathmandu Valley has the lowest prevalence of population with poor caloric consumption, at around 16 percent (Figure 6.2).

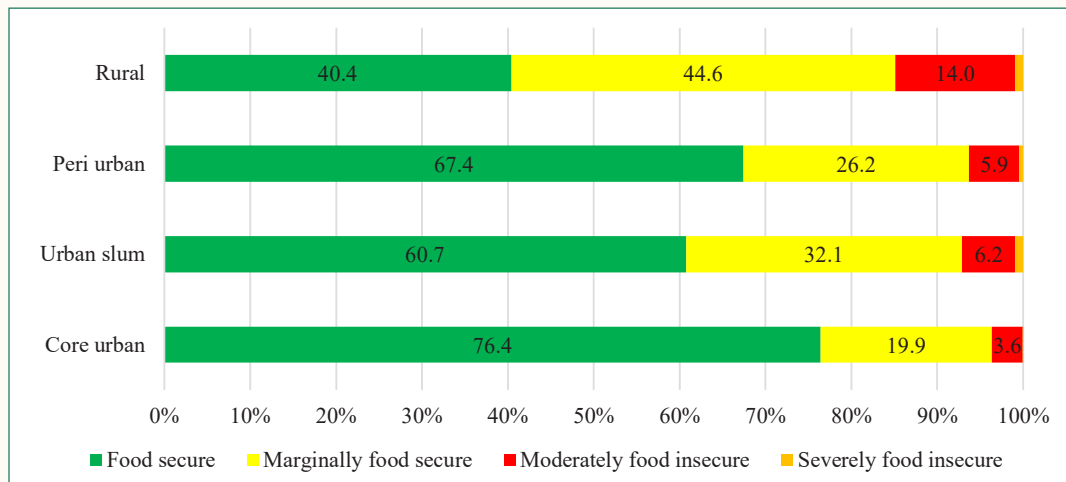
Figure 6.2: Percentage of population consuming calories less than the threshold (based on analysis of NLSS data)





Instead of considering urban and rural areas in isolation, it is important to understand their interconnectedness and look at them from a food systems approach. While urban residents generally have higher incomes, they mostly rely on the food sourced from rural and peri-urban areas. Among the urban populations, households living in slums and peri-urban areas are more vulnerable to food insecurity. In a nationwide survey conducted by WFP(2024), only 3.7 percent of the households in core urban areas were found to be food insecure (3.6% moderate and 0.1% severe), while this figure was 7.1 percent (6.2% moderate and 0.9% severe) for urban slums, 6.4 percent (5.9% moderate and 0.5% severe) for peri urban and 14.9 percent (14% moderate and 0.9% severe) (Figure 6.3).

Figure 6.3: Household food security (CARI) in urban and rural areas, December 2023

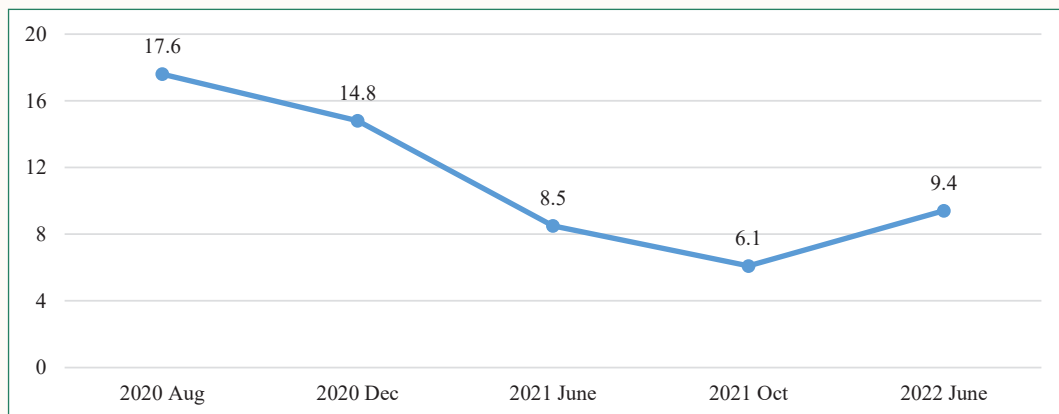


Source: WFP (2024)

The vulnerability of urban population, particularly those from the low-income groups, and those depending on informal, casual labour, was clearly manifested during the COVID-19 pandemic. Millions of urban residents suffered from food insecurity and malnutrition, globally and in Nepal. In Nepal, the COVID-19 was first detected in March 2020, and soon the pandemic affected lives and livelihoods across the country, particularly in the urban areas. Based on data curated by WFP, around 18 percent of the urban households in August 2020 (during the height of the pandemic) were reportedly suffering from inadequate food consumption, which then decreased gradually to 6.1 percent a year later in October 2021 (Figure 6.4).



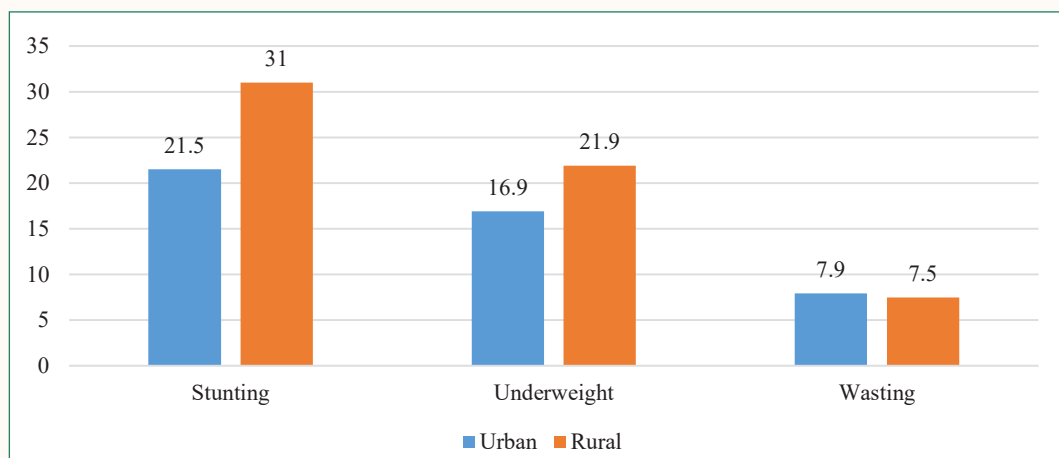
Figure 6.4: Percentage of urban population with inadequate food consumption



Source: WFP (2024)

Overall, a relatively better situation of household food security in urban areas is also reflected in the nutritional outcomes. Prevalence of stunting in urban areas at 21.5 percent is significantly lower than the rural areas (31%). Similarly, the prevalence of underweight children in urban areas (16.9%) is also lower than that in the rural areas (21.9%), while the prevalence of wasting is slightly more in urban areas (urban: 7.9%, rural: 7.5%) (Figure 6.5). Furthermore, overweight and obesity is a bigger problem in urban areas due to sedentary lifestyle while people are consuming more calories than in urban areas.

Figure 6.5: Prevalence of child malnutrition in urban and rural areas



Source: NDHS (2022)



Traditionally, Nepal is predominantly an agricultural country with most people living in the rural areas. However, as explained earlier, the country has gone through a significant urbanisation in recent decades. While the prevalence of food insecurity is still higher in rural areas, there is also a need for increased attention to address urban food insecurity. People in urban areas, particularly with low income and unstable livelihoods, are more vulnerable when a breakdown in the supply chain due to transportation problems, disasters and other economic shocks occur. This is primarily because they lack their own production entitlements. Moreover, there is also less social capital or community support when the problems occur. The urban poor become more vulnerable in the absence of a well-functioning social protection system.



Gender, Ethnicity and Food Security

Summary

- Findings indicate that female-headed households are slightly more food insecure than male-headed households. In terms of nutrition, anaemia in women of reproductive age is of special concern.
- Male out-migration has led to a rise in the proportion of female-headed households, increasing from 15 percent in 2001 to 25.7 percent in 2011 and 31.5 percent in 2021. This has led to the feminisation of agriculture with increased care and economic burden on women.
- Among the country's different castes and ethnic groups, Dalit households, and especially those in the Terai, have the highest prevalence of food insecurity.

Gender Dimension of Food Security

Societies with a higher level of gender equality are generally better off in food security and nutrition. If women have better access to education, healthcare, and income-generating opportunities, they have a better ability to care for their children, leading to improved nutritional outcomes of the children. Such households are also likely to have better food consumption. Countries ranking the highest on the global hunger index are also those where gender inequalities are more severe (von Grebmer et al., 2009). Existing evidence also illustrates the strong correlation between higher levels of the gender equality index and lower child mortality (ADB & FAO, 2013).

Women and girls are typically hardest-hit by food insecurity and malnutrition. Adolescent girls and women often face a crisis of food and nutrition insecurity, especially in poorer regions (UNICEF, 2023). Different biological needs due to menstruation, pregnancy and lactation, as well as discriminatory social norms and unequal access to resources, put them at risk of food and nutrition insecurity. Malnourished mothers give birth to vulnerable newborns; for example, anaemic mothers are at a higher risk of giving birth to premature, low-birthweight, and anaemic infants (da Silva Lopes et al., 2018).

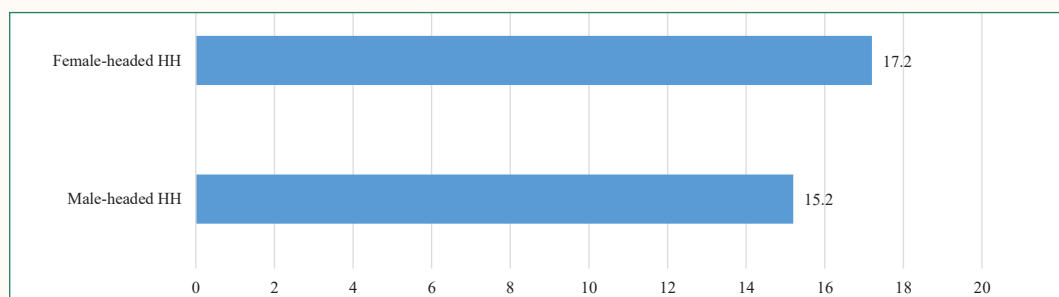
Women and girls also suffer disproportionately from the effects of weather extremes and climate emergencies. A FAO (2024) study suggests that heat waves and floods widen the gap not only between the poor and non-poor, but also between male- and female-headed.



Nepal has made significant progress in gender empowerment, including education of women, which has also had an impact on food security and nutrition. While women-headed households in Nepal may not be necessarily worse off in terms of food security and nutrition – for instance, some households may be better off due to increased income from remittances when the men are working abroad – there are also other vulnerabilities such as increased burden on women and elderly, associated with the women-headed households when working-age men are not in the family.

A nationwide household survey by WFP (2024) found that 17.2 percent of the female-headed households have inadequate food consumption (based on food consumption score), compared to 15.2 percent for male headed households (Figure 7.1).

Figure 7.1: Percentage of households with inadequate food consumption by gender of the head of household



Source: WFP (2024)

The high prevalence of anaemia (34%) in women of reproductive age is of particular concern in Nepal as explained in Chapter 3. The situation is most serious in Madhesh Province (52.4%), followed by Lumbini (44.4%). Anaemia in women of reproductive age has a significant impact on their children, likely to contribute to a high prevalence of anaemia among the latter. Thus, it is important to make concerted efforts to reduce the anaemia in women.

Feminisation of Agriculture

In recent decades, due to the increasing out-migration of young male members of the household, women have been bearing the brunt of the workload in agriculture. Male out-migration has led to a rise in the proportion of female-headed households, increasing from 15 percent in 2001 to 25.7 percent in 2011 and 31.5 percent in 2021 (CBS, 2011; NSO, 2021). This trend varies across regions, with higher rates observed in Gandaki Province (41%), Lumbini (35.5%), and Sudurpaschim (35%) (NSO, 2021). Male out-migration



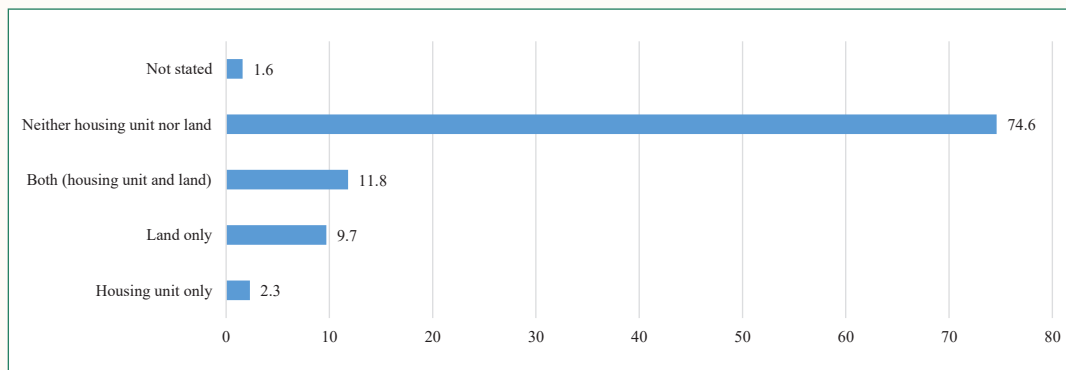
reshapes household roles, requiring women to assume new responsibilities in agriculture, household care work and management and decision-making.

The feminisation of agriculture has profound social and economic consequences. On the positive end, women gain greater control over household finances, assets and mobility. However, they face increased workloads and are tasked with responsibilities traditionally performed by men, such as ploughing fields and marketing agricultural products, areas in which they often have less experience (FAO, 2019). Socially, this shift may create injustices for women, including heightened family stress, family breakdowns, and children being raised by single mothers or female relatives. Economically, labour shortages lead to underutilisation of the agricultural sector, abandoned productive land, food insecurity, and chronic malnutrition among mothers and children (Bhadra, 2007; Tamang et al., 2014, as cited in FAO, 2019).

Women owning fixed assets

Ownership of assets is one of the indicators of economic access to food security. Despite some improvement in recent years, the patriarchal nature of Nepali society is still well reflected in the property ownership. According to the 2021 census, less than one quarter (23.8%) of the total households have ownership of land or a housing unit, or both registered in the name of female household members (Figure 7.2). Only in 11.8 percent of households, ownership of both the housing unit and land is in the name of females. This is an increase of 1.1 percentage points compared to that in 2011. The districts with the highest percentage of households with female ownership of land and housing units were Morang (18.7%), Nawalparasi East (18.2%), and Jhapa (17.6%), while Kalikot (1.9%), Bajura (2.2%), and Humla (2.2%) recorded the lowest proportions.

Figure 7.2: Percentage of households having ownership of housing unit, land and both in the name of female members



Source: NSO (2023)



Despite more women being engaged in agriculture than men (among the 13.2 million persons engaged actively in agriculture in Nepal, 52% are females), ownership of land is more by men. Only 21 percent of those engaged in agriculture are in possession of land registration certificates (*Lal Purja*) (Dhungana, 2023).

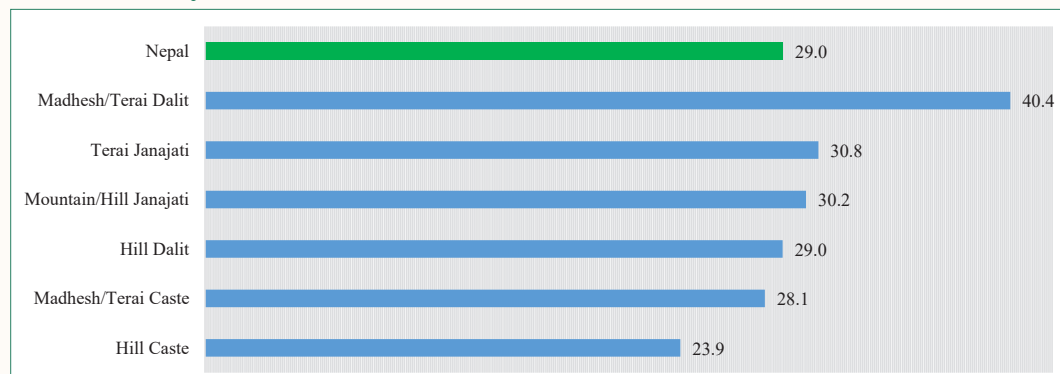
Higher engagement of women in the agriculture sector

According to the 2021 Census, the total economically active population (aged 15 years and above) constitutes 65.5 percent. This proportion is 71.2 percent for males and 60.2 percent for females. Among the economically active population, 57 percent are engaged in the agriculture, forestry and fisheries sector. Notably, female engagement in the sector is 14 percentage points higher than that of males, with 65 percent of females and 51 percent of males participating in these activities. Thus, women's role in food security is significant because of their higher level of participation in the agriculture sector.

Caste, Ethnicity and Food Security

There is also significant variation in food security and nutrition by caste and ethnicity in Nepal. For instance, Dalit households have higher levels of food insecurity and malnutrition compared to Brahmin/Chhetri households. The analysis of the NLSS 2022/23 data shows that among the Dalits in Terai, more than 40 percent of the population do not have adequate consumption of calories, while this proportion is 29 percent for Hill Dalits, 31 percent for Terai Janajati and 24 percent for Hill Caste (Figure 7.3). The poor food security situation of Dalits is in line with their overall poor status including little or no ownership of land, low level of education and high prevalence of poverty.

Figure 7.3: Percentage of people consuming calories below the threshold by caste/ethnicity

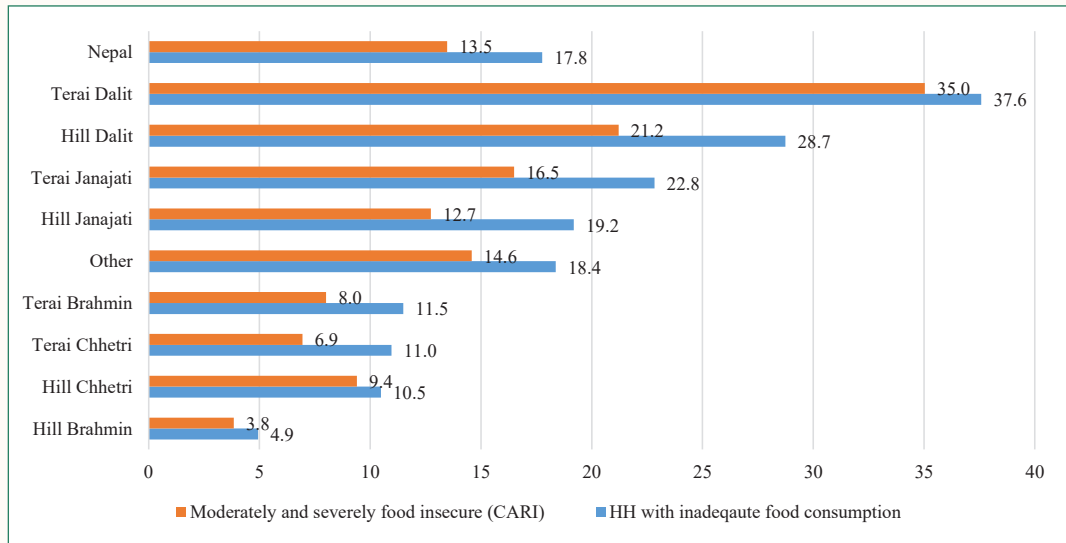


Source: Based on the analysis of NLSS IV data



Similarly, WFP survey also reported the highest prevalence of food insecurity in the Dalits, particularly in Terai (Figure 7.4).

Figure 7.4: Caste/ethnicity and food security



Source: WFP (2024)



Section C

Factors Driving Food Security and Nutrition

There are various factors that contribute to food security and nutrition, and thus it is important to understand these in order to have a comprehensive understanding of the situation. This section looks into various sectors related to food availability, food access, utilization and stability. Chapters on agriculture, and markets and trade attempt to provide an understanding of the food availability situation in Nepal, while chapters on economy and livelihoods; migration and remittances; and social protection help illustrate the situation of economic access. Similarly, the chapter on health and education sheds light on the utilization aspect of food security. The chapter on climate, disaster and food security examines the vulnerabilities that affect the stability of the food security situation.





Summary

- Among the main cereals, about 6.0 million MT of rice, 3.2 million MT of maize and 2.1 million MT of wheat was produced in 2024/25. Even though more than 60 percent of the population is engaged in agriculture, Nepal is a food-deficient country that has to rely on significant food imports.
- Data from the past ten years indicate a significant increase in production of some items such as fruits (52%), milk (56%), meat (51%), eggs (94%), fish (80%), vegetables (32%) and potato (42%) while there has been a decrease in the production of some food items such as pulses (19%) and sugarcane (6%).
- Despite the challenges due to climate impacts, there is a potential to increase production significantly with better farm inputs, more budgetary allocation and effective implementation of related programmes.

Nepal is predominantly an agricultural country with 62 percent of households engaged in this sector (NSO, 2023), a decrease from the 71 percent estimated in 2011/12. The agriculture sector contributes 21 percent to the national GDP. By comparison, agriculture contributes only about 4 percent to the world's GDP (FAO, 2022). Nepali agriculture is mainly characterised as subsistence farming heavily dependent on monsoon rain and low agricultural inputs, resulting in low yield per hectare.

Respective governments have been reiterating that the agriculture sector remains a high priority. Several policy measures and programmes have been announced and implemented by the Governments at various times. These include the Agriculture Development Strategy 2015-2035 which succeeded the Nepal Agriculture Perspective Plan (APP), 1995-2015, the Prime Minister Agriculture Modernization Programme (PMAMP), and the decade of agriculture investment announced in the budget speech of FY 2081/82. However, the progress in the agriculture sector is much less than desired.

Nepal is blessed with rich agro-ecological diversity, ranging from the Terai plains to the high Himalayas, thus making it suitable for different types of crops, fruits, vegetables and livestock (Annex 3). However, much needs to be done to realise this potential.



While Nepal's agriculture sector, along with the land use and ownership structure, has gone through transformations in different phases of history, farming in Nepal is still predominantly traditional and therefore somewhat resilient to certain external shocks compared to manufacturing/industry and service sectors. For example, during the devastating earthquake of 2015 or the COVID-19 pandemic during 2020/21, agriculture was not significantly affected while other sectors such as industry or services faced a devastating blow. Nonetheless, Nepal's agriculture faces considerable challenges due to climate change, including erratic rainfall, altered temperature, and an increased frequency of extreme weather events, which collectively threaten crop yields, livestock health and food security.

Cereal Crop Production Trends

The main cereal crops in Nepal in terms of quantity of production are rice, maize, wheat, millet, buckwheat and barley. Among them, rice, maize and wheat account for more than 90 percent of the annual cereal production, rice alone contributing to almost 50 percent of the total.

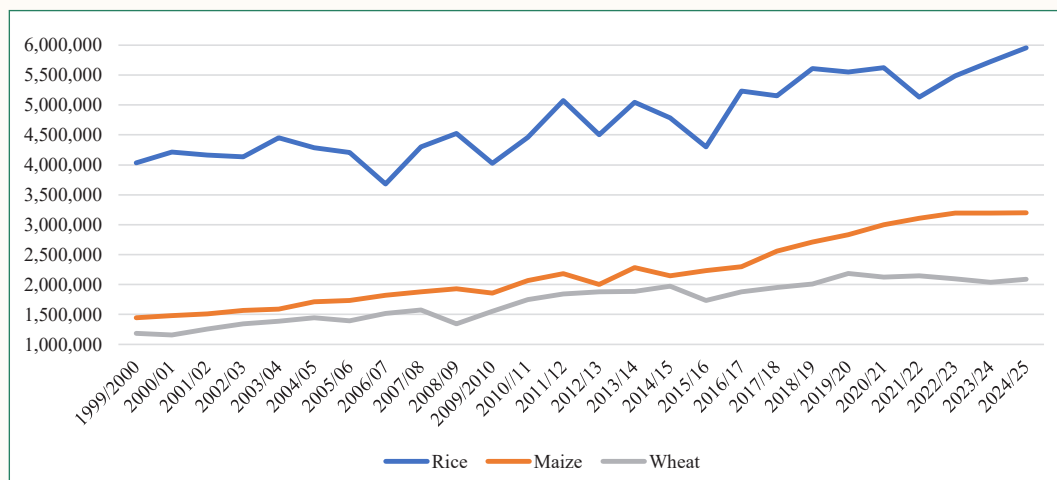
In 2024/25, a total of 5.96 million MT of rice, 3.20 million MT of maize and 2.09 million MT of wheat was produced in Nepal (MoF, 2025; MoALD, 2025). This corresponds to about 3.2 million MT of edible rice; 2.4 million MT of edible maize - a big proportion of the latter, as much as three-fourth, goes for animal feed.⁴ This is not enough even to meet the consumption needs of its population, which is not a good sign for the economy of a country with more than 60 percent of the population engaged in agriculture.

Looking at the trends of major cereal production since 2000 (Figure 5.1), the increase in production has been slow and has not kept pace with the increasing demand of the growing population in the country. The average yield of rice in 2024/25 has been 4.19 MT/Ha, while that of maize and wheat has been 3.46 MT/Ha and 3.0 MT/Ha, respectively. There is, thus, a significant scope for increasing production.

4. About 60 percent, 25 percent and three percent of maize were used for animal feed, food and seed respectively in hill districts, whereas the remaining amount of the maize (12%) was sold to the different buyers (Timsina, et al., 2016).



Figure 8.1: Production trends of major cereal crops since 1999/2000 (annual production in MT)



Source: MoALD (2024), MoF (2025)⁵

Box 8.1: Reliability of agricultural data

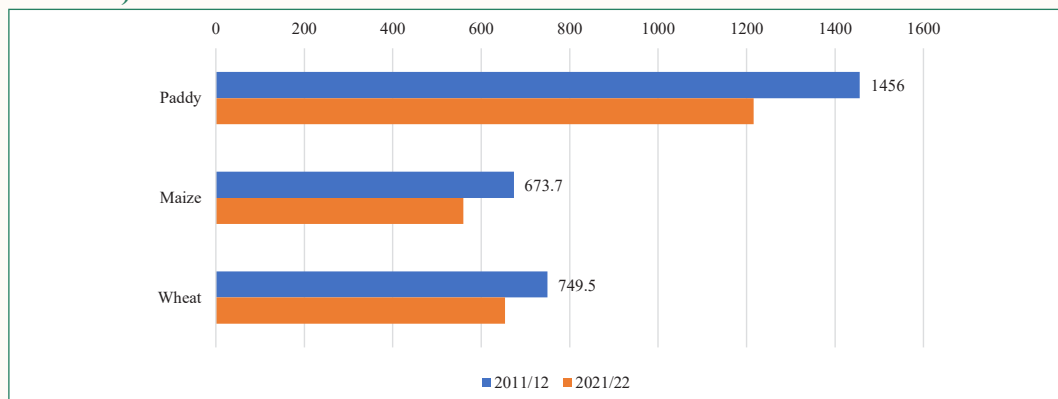
Having reliable data on agriculture, such as area under different crops, production, yield and condition of the crops, is important for designing, implementing and monitoring evidence-based policies and programmes. In Nepal, the main source of agriculture-related statistics is the MoALD. The data on area under cultivation and production of different crops is mostly based on information provided from the field offices, and there are concerns about the reliability of the data. There are scientific methodologies available to provide more reliable estimates. For example, one method is the use of satellite remote sensing together with some ground truthing information from the field, combined with crop cutting samples from selected plots, which could be used for estimating the total area under each crop and also assessing total production. Furthermore, by analysing the vegetation health status of crops and combining it with rainfall data, and using a yield model, it is also possible to make reasonably good estimates of likely crop yields well before the harvest, thus providing important information for advance planning. Similarly, small area estimates may also be useful in providing better estimates of agricultural production and related data at district or sub-district level.

The country's area utilised for agriculture has decreased in recent years. As per the agriculture census, during the period between 2011/12 and 2021/22, the cultivated areas of paddy, maize and wheat have decreased by 16.5 percent, 16.9 percent and 12.7 percent respectively (Figure 5.3).

5. The data used for the fiscal years 2023/24 and 2024/25 are from the MoF (2025).



Figure 8.2: Area under major crops in 2011/12 and 2021/21 (in thousand hectares)



Source: NSO (2023)

Box 8.2: Fallow agricultural land

As per the agriculture census 2021/22, some 60,000 Ha of agricultural land is estimated as fallow, which is twice the area observed ten years ago. There is no precise data on the abandoned or fallow land. Anecdotal data from various studies indicate that the magnitude of abandoned or fallow agricultural land has reached a serious level in recent years, particularly in hill and mountain districts. Migration of people from rural to urban areas, migration of working age young people for foreign employment, increasing risk of damage of farm production by wild animals such as monkeys and wild pigs (a consequence of the increase in forest cover in the hilly areas) and decreasing interest of youth in farming due to low perceived returns are some of the primary reasons for this. Thus, a comprehensive study on the state of fallow land across the country, and evidence-based policy to address this situation is the need of the hour.

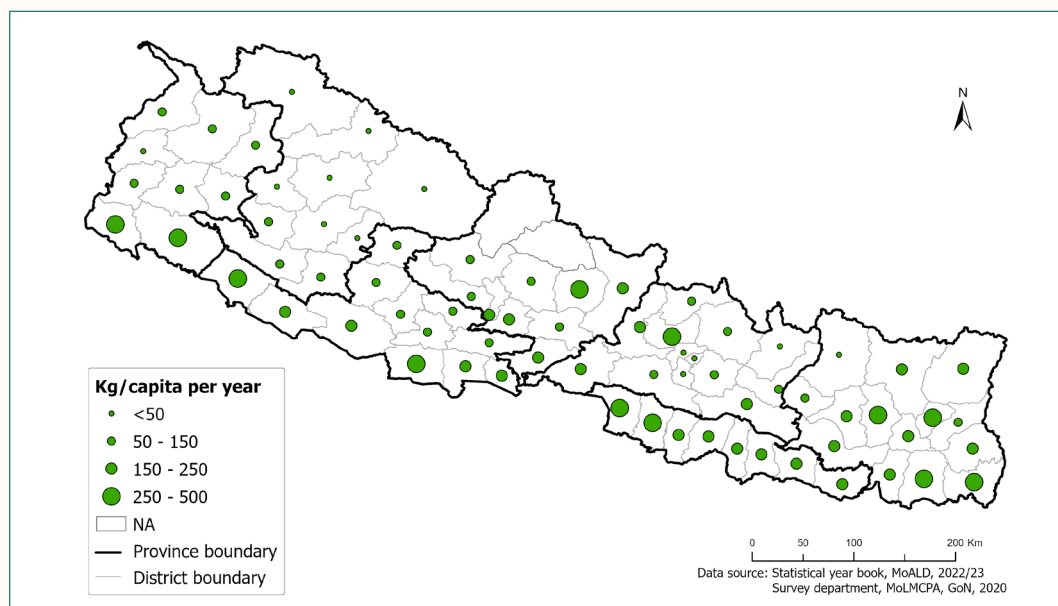
As per the district wise production data from the MoALD and using the per capita requirement for consumption needs of each district, districts may be classified into different categories in terms of food surplus or deficit status. A map (Neupane et al., 2025) showing the food surplus or deficit status of districts considering rice, maize, wheat, millet, barley and potato is provided in Annex 7. Though there is room for improvement in the reliability of agricultural data at the lower geographic level, and thus it needs to be interpreted with caution, nevertheless such a map is useful to visualize the geographic variation in food production vis-à-vis the demand.

There is a wide geographic variation in the production of different cereals, cash crops, vegetables and fruits across the country, depending on the agro-ecosystem, rainfall, availability of irrigation and other farm inputs, land conditions and the choice of local farmers. Figure 8.3 presents maps of production of different crops per capita by districts of Nepal, considering the district wide production data of 2022/23.

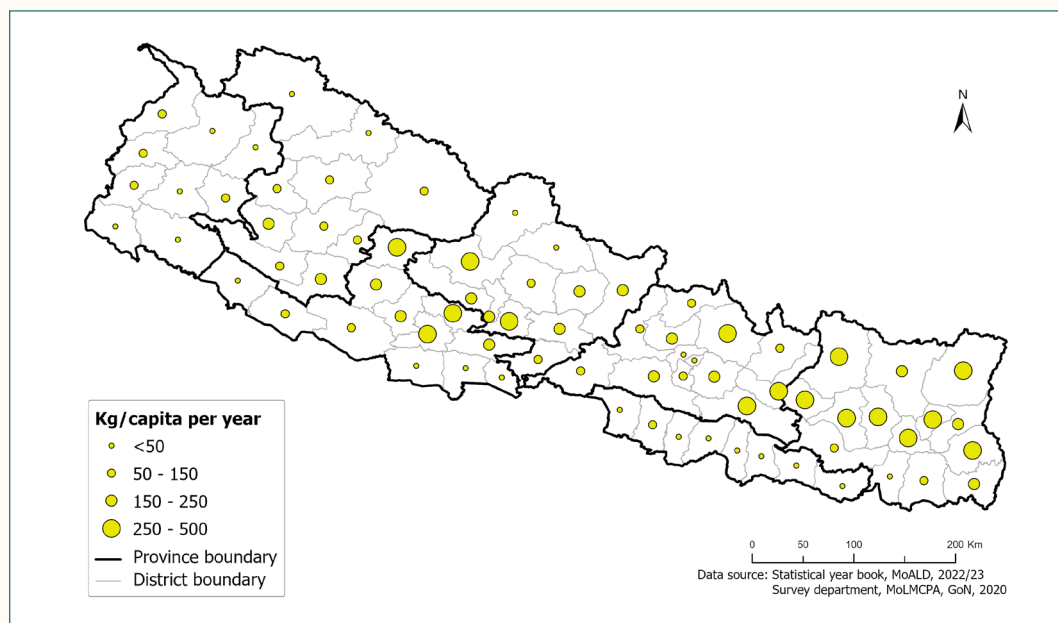


Figure 8.3: Production per capita of different food crops, including six main cereals, potato, vegetables and fruits by district

Rice

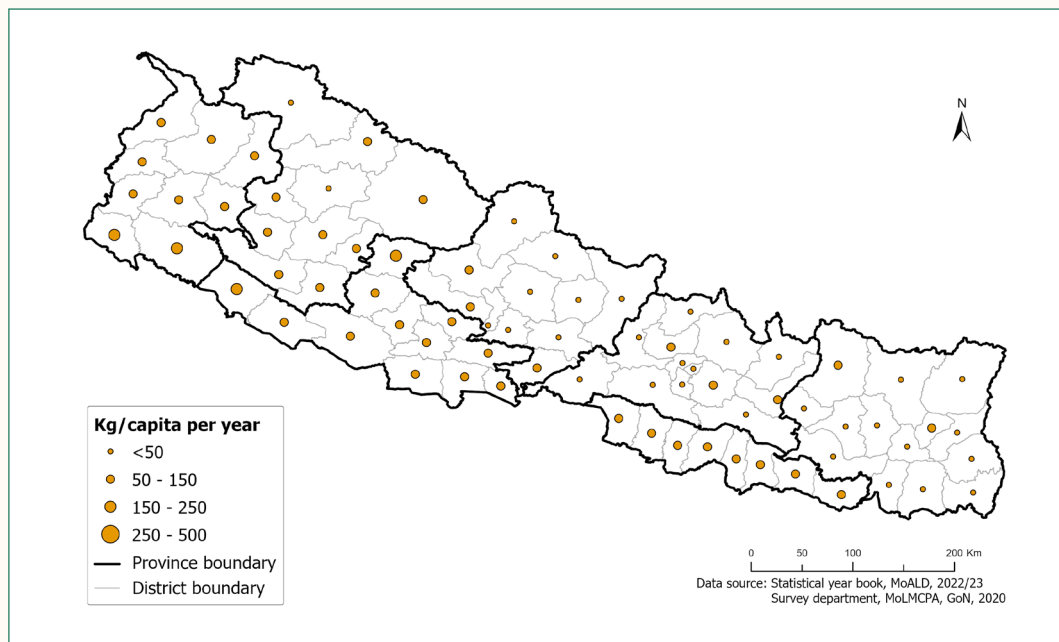


Maize

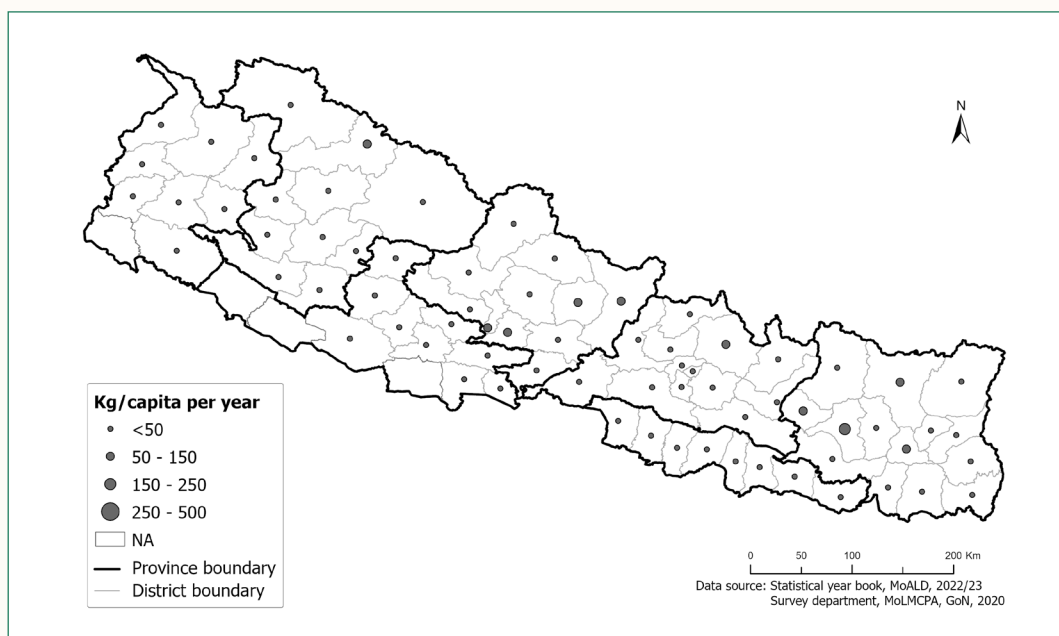




Wheat

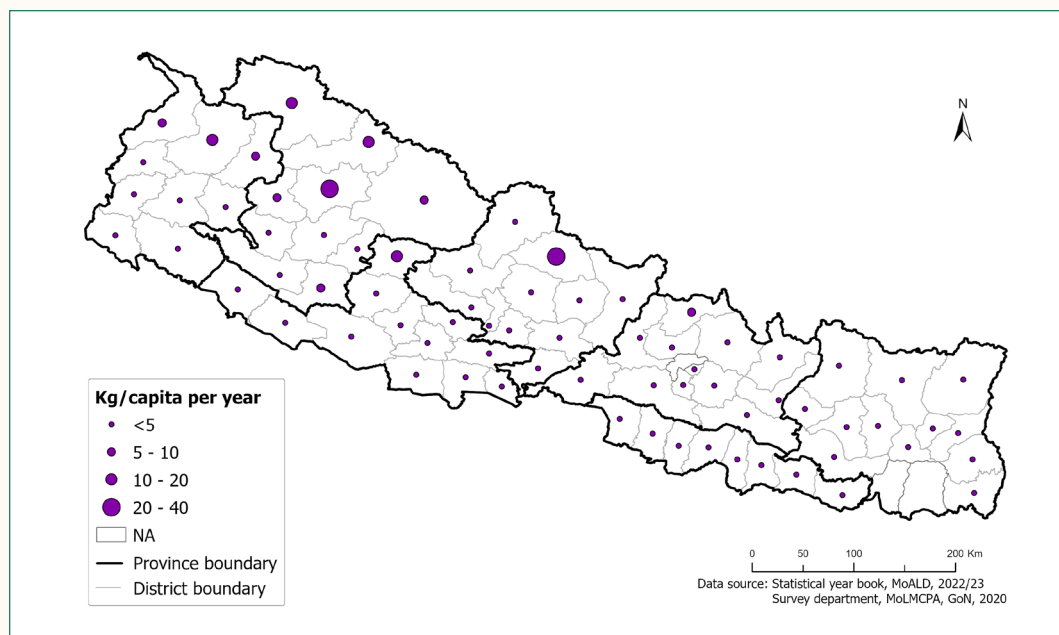


Millet

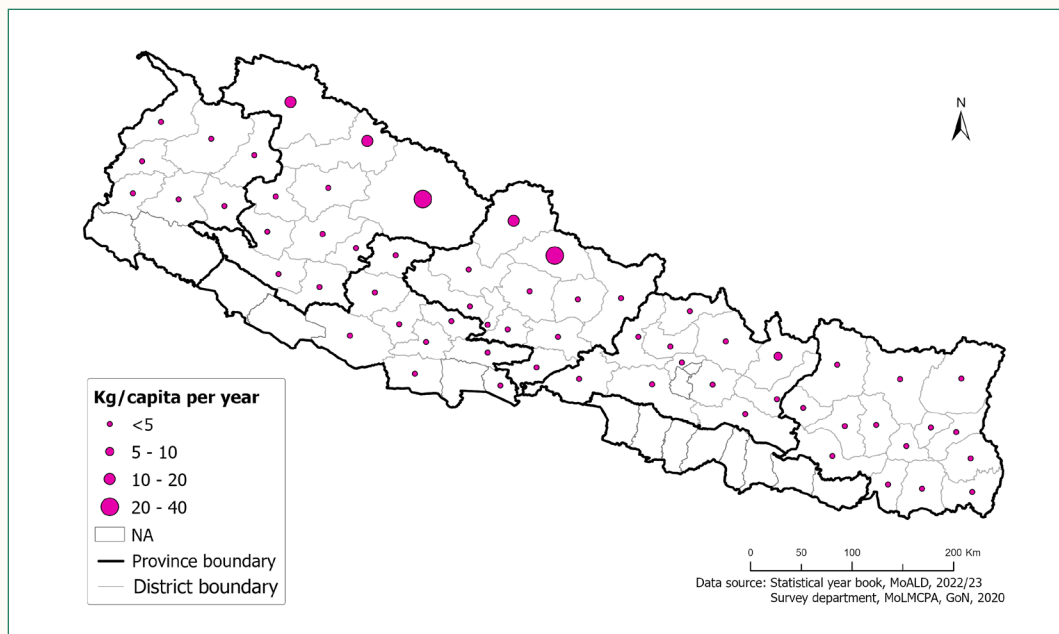




Barley

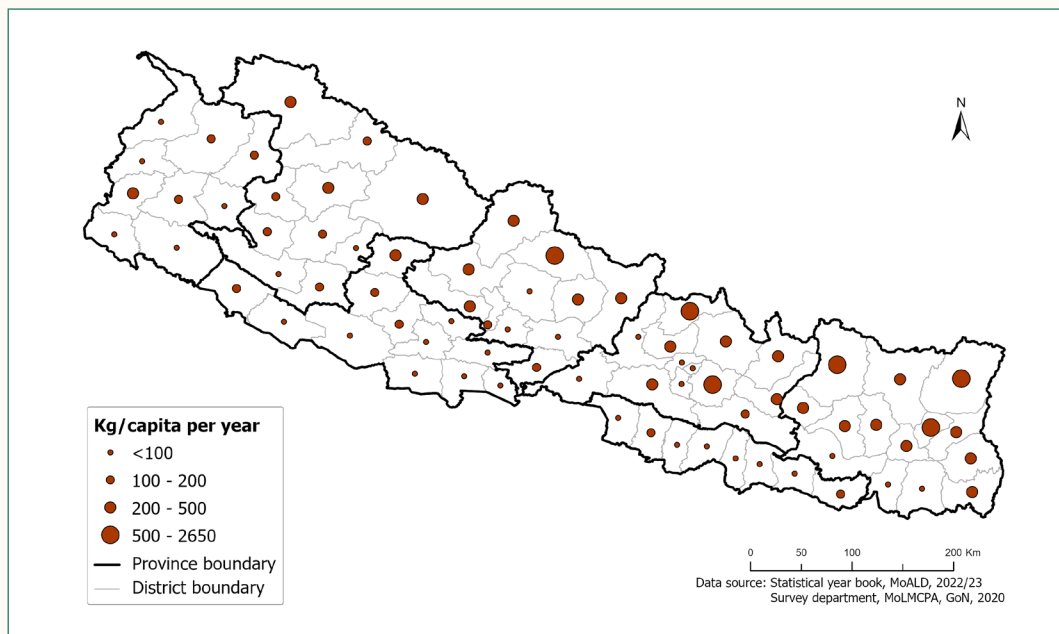


Buckwheat

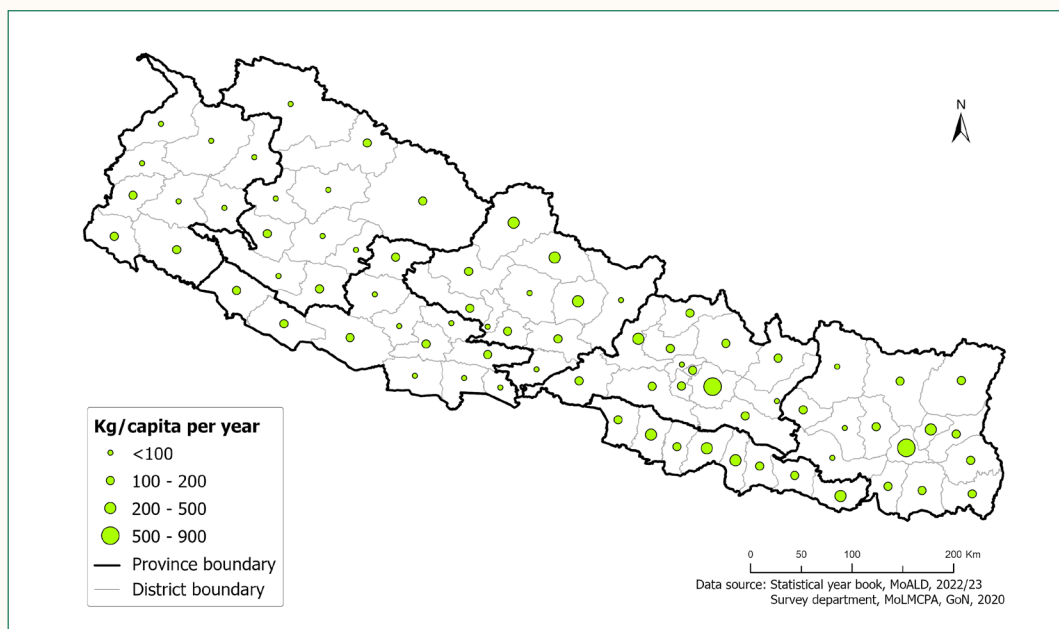




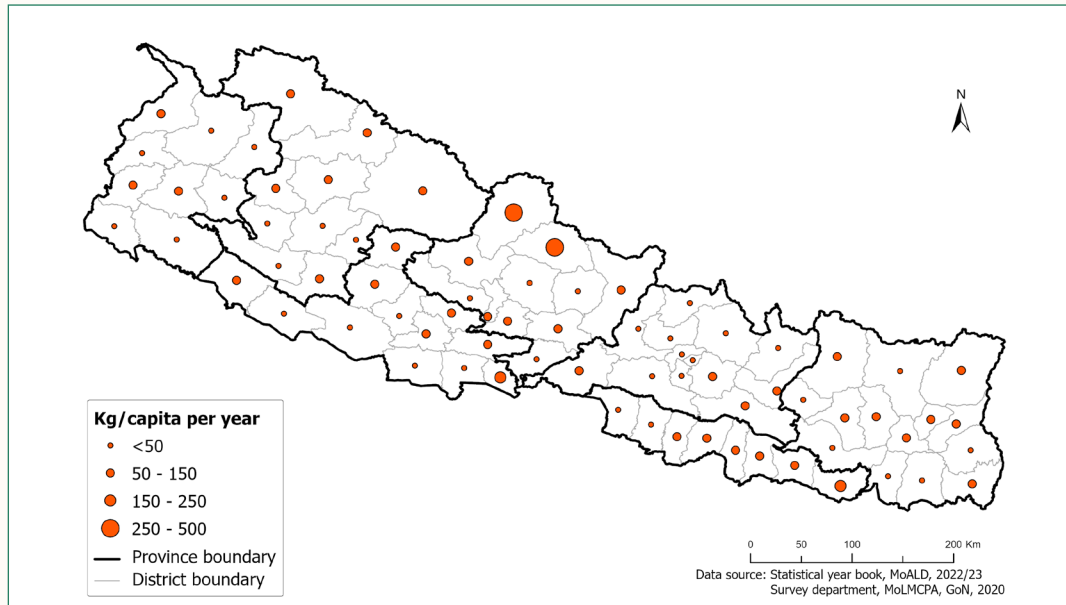
Potato



Vegetables



Fruits



Source: Produced using data from MoALD (2024)

While Jhapa (407,753 MT per year), Morang (392,465) and Kailali (322,646) are the most rice-producing districts, it can be seen that rice production per capita is the highest in Bardiya (448 kg), followed by Jhapa (400 kg), Kailali (357 kg), Morang (342 kg), Bara (325 kg), and Kanchanpur (314 kg), all in Terai. Rice is produced in all districts except Manang and Mustang, although the production varies depending on the agro-ecological context and farming practices. Similarly, maize production is generally higher in the hill districts, and wheat production is higher in the Terai and hill districts of Lumbini and Sudurpaschim provinces. Millet production is more in hilly districts, and buckwheat and barley production is more in the mountain districts of Gandaki and Karnali.

Annual potato production per capita is the highest in Manang (2,612 kg), followed by Rasuwa (908 kg) and Solukhumbu (797 kg), and is the lowest in Kathmandu (10 kg), followed by Rupandehi (32 kg), Lalitpur (35 kg), and Achham (43 kg).

Vegetable production per capita is the highest in Dhankuta (890 kg), followed by Kavrepalanchok (540 kg), Manang (377 kg) and Sarlahi (350 kg). Similarly, fruit production per capita is the highest in Mustang (486 kg), followed by Manang (351 kg) and Saptari (198 kg), while it is the lowest in Kathmandu (1.7 kg), Lalitpur (5.7 kg) and Bhaktapur (6.2 kg).



Nepal's Rice Culture, Production and Implications on Food Security

Rice is the most important staple crop in Nepal and is closely associated with people's livelihood, food habits and culture since ancient times. Since 2005, Nepal has been officially celebrating *Ashadh 15* (based on the Nepali calendar; usually June 28 in the Gregorian calendar) as the national paddy day.

As per the last economic survey by the Ministry of Finance (MoF), the contribution of paddy to the total national GDP is about 7 percent. Thus, rice production in any year has a significant impact on the national economy.

Production trends

Looking at the trends of production in the last two decades (Figure 5.2), the situation is far from satisfactory. Even though there has been some increase in production, it is inadequate to meet the needs of the increasing population and the growing demand for rice as the most preferred staple.

Globally, Nepal is the 15th largest producer of rice (USDA, 2024). Top producers of rice in the order of the magnitude of annual production are China, India, Bangladesh, Indonesia, Vietnam, Thailand, the Philippines, Myanmar, Pakistan, Brazil, Cambodia, Japan, Nigeria, Egypt and Nepal.

In terms of productivity, the average yield per hectare in the last five years has been 3.85 MT. By comparison, the yield per hectare is more than 7.1 MT in China and 6.8 MT in Japan, while it is 4.2 MT in India, 4.6 MT in Bangladesh, 3.8 MT in Pakistan, 4.2 MT in Sri Lanka, and 4.1 MT in the Philippines (USDA, 2024).

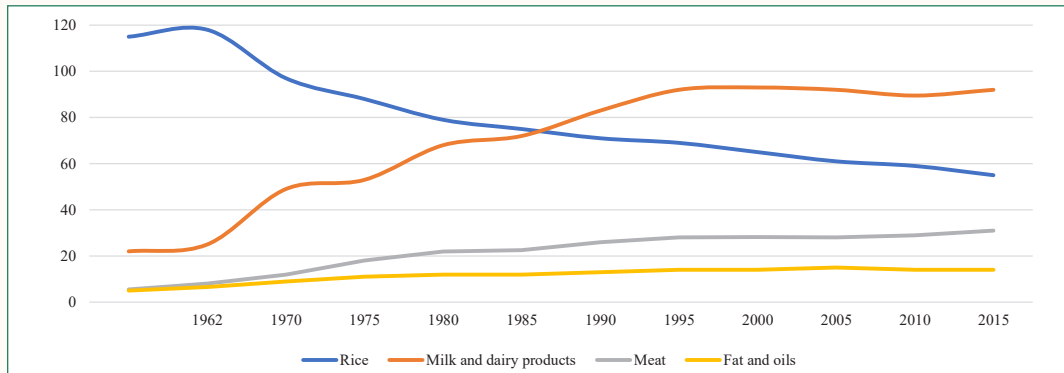
Consumption trends

An average Nepali consumes about 119 kg of rice per year. By comparison, this figure is 86 kg in Japan, 100 kg in India, 125 kg in China, and 17 kg in Pakistan.

Data from different countries on food consumption indicates that with the increasing ability to afford a more nutritious diet, the consumption of protein and vitamin-rich food items increases while that of calorie-rich cereal grains decreases. For instance, in Japan, the per capita consumption of rice, the main staple in Japanese people's diets, has halved over the past fifty years; while that of milk and dairy products and meat has increased significantly but has somewhat stabilised since the early 2000s (Figure 8.4).



Figure 8.4: Trends of consumption of different food items (kg) in Japan since 1962



Source: Nippon.com (2018)

In Nepal, an increasing trend in the consumption of rice per capita was observed until recently. Analysis of data from various NLSS waves indicates that consumption of rice at home per person increased from about 100 kg per year in 1995/96 until a peak of 138 kg in 2015/16 and then has decreased to 102 kg in 2022/23. Also, considering the food eaten outside, it is estimated that the average per capita consumption of rice in Nepal is now about 119 kg per year.

On the other hand, the consumption of meat, fish, milk and vegetables has increased. If current trends continue, the rice consumption per capita is likely to decrease further, as households can afford more nutritious food and are increasingly more aware of nutrition. In this context, it is advisable that people should be educated on further shifting towards more nutritious food, which will in turn reduce rice consumption. Furthermore, given the people's food habits, fortification of rice with micronutrients can also help in better nutrition outcomes.

Import dependence

Nepal relies on imports to meet a significant proportion of its domestic demand. As per the data from the Department of Customs, Nepal imported rice and paddy worth NPR 40 billion in 2024/25. However, such was not the case in the past. Rice used to be one of the major exports of Nepal until the mid-1980s; the earnings from rice export have declined consistently since then, and now it is one of the major imports.

The changing socio-cultural values associated with food systems is also one of the reasons for the growing import of the food. People preferring 'high quality' rice, such as Basmati rice and products from the globalised world, have also helped in inducing higher food imports. This needs to be accounted for in forthcoming policies.



A two-pronged approach

Given the current situation, the following two-pronged approach may be considered:

- There is potential for significantly increasing rice production, which should be researched and pursued. Additionally, encouraging the production of rice varieties that align with consumers' preferences is essential.
- There should also be awareness campaigns to encourage people to adopt a more nutritious diet instead of rice. Additionally, traditional local foods other than rice should also be promoted. Rice fortification may be considered to improve nutrition for those who continue to consume a significant amount of rice.

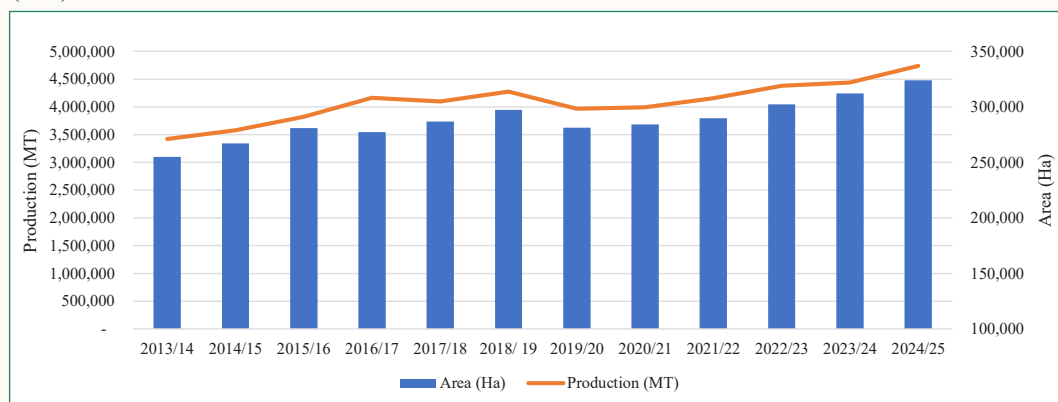
Vegetables and Fruits

Vegetable production

In 2024/25, about 4.7 million MT of vegetables were produced in Nepal (MoALD, 2025 as cited in MoF 2025), which translates to about 158 kg per person. As per the data, the production of vegetables has increased by about 32 percent in the past ten years, while the area under cultivation has also increased by 21 percent. The productivity of vegetables in 2024/25 was 14.6 MT/Ha.

In 2024/25, Nepal imported vegetables worth about NPR 37 billion. The situation can be improved by increasing production domestically and by providing better market access for local producers.

Figure 8.5: Annual production of vegetables (MT) and area under cultivation (Ha) since 2013/14



Source: MoALD (2025) as cited in MoF (2025)

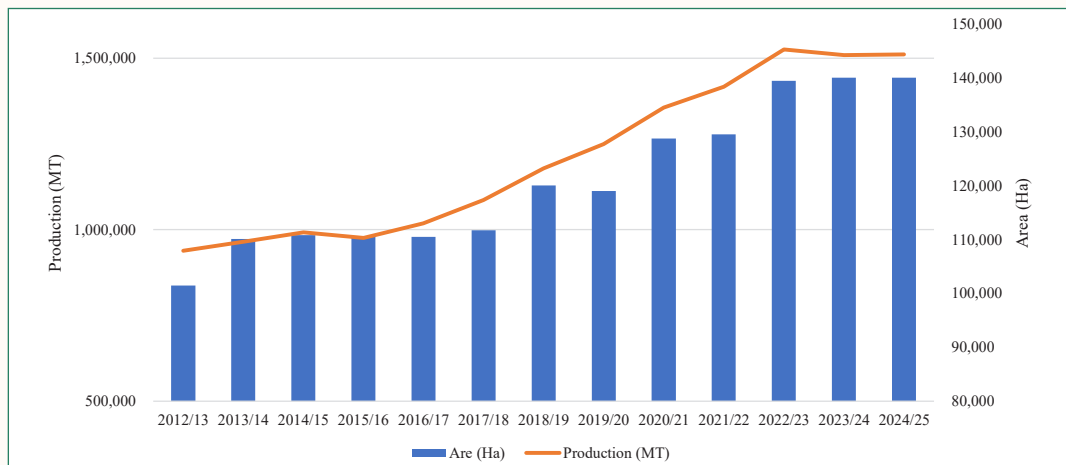


Fruit production

Nationally, around 1.5 million MT of fruits were reportedly produced in Nepal in 2024/25. The data show that fruit production in the past ten years has increased by 52 percent while the area under cultivation has increased by 26 percent. Among the different fruits, Sindhuli, Syangja, Jajarkot, Tanahun, Ramechhap, Kavrepalanchok and Rolpa are the major citrus fruit-producing districts while Siraha, Saptari and Rautahat are the top mango-producing districts.

There is a large quantity of fruits imported into Nepal annually. For example, in 2024/25, fruits worth NPR 21 billion were imported. Such a dependency on imports is due to a combination of factors, including inadequate domestic production for the increasing consumption needs, poor storage facilities and a lack of reliable market access for local producers in remote areas.

Figure 8.6: Annual production of fruits (MT) and area under cultivation (Ha) since 2012/13



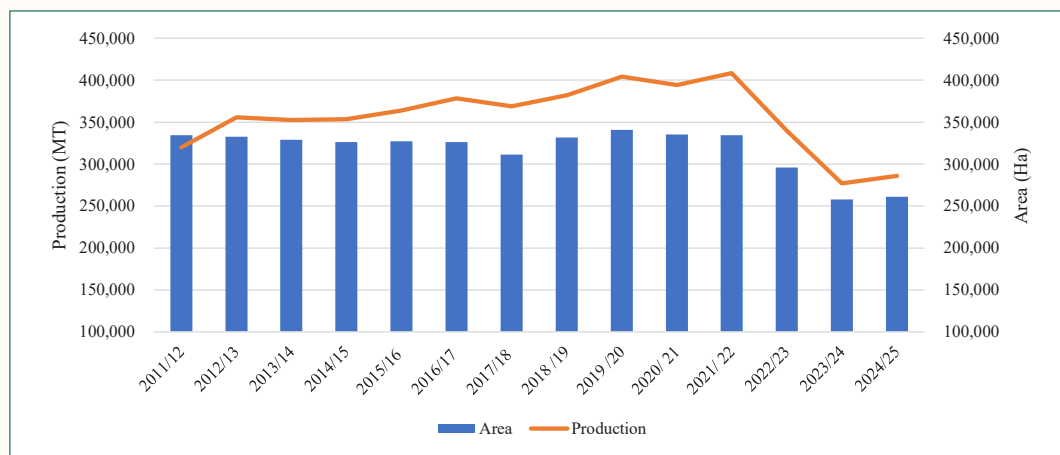
Source: MoALD (2025) as cited in MoF (2025)

Pulses

As per the data, about 386,000 MT of pulses (lentil, chickpea, pigeon pea, black gram, grass peas, horse gram, soya bean and others) were produced in Nepal in 2024/25, which is about 10 kg per person per year. Area under cultivation, as well as production, has declined by about 20 percent in the past ten years (Figure 5.10). This is concerning, given that pulses are important sources of protein in a Nepali diet.



Figure 8.7: Annual production of pulses (MT) and area under cultivation (Ha) since 2012/13



Source: MoALD (2025) as cited in MoF (2025)

Pulses are important for land conservation as well as a good source of protein, and these are climate-smart crops which easily fit into intercropping practices (Drewnowski & Conrad, 2024).

Cash Crops

Due to the abundance of different agro-climatic conditions and soil types, Nepal has a huge potential to produce various cash crops for domestic consumption as well as export. However, much needs to be done to realise this potential. In terms of annual production, potatoes, sugarcane and oilseed are the major cash crops in Nepal.

Potato

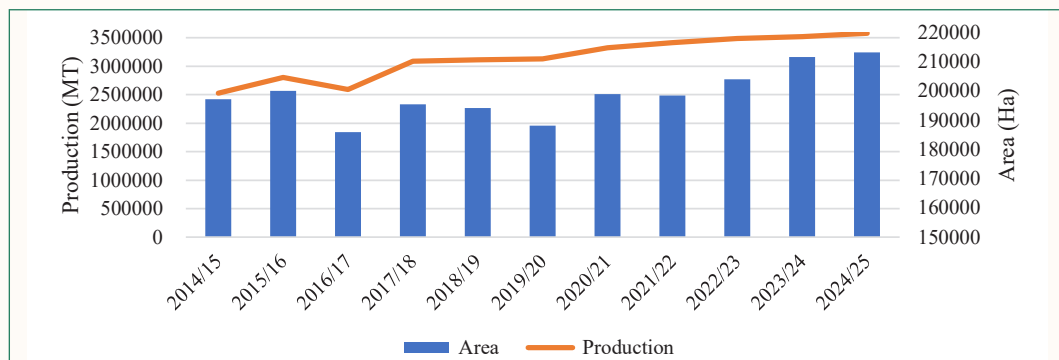
Potato is an important part of Nepali diet, and thus source of calories. Some 3.6 million MT of potatoes were produced in Nepal in 2024/25, with 212,000 Ha under cultivation. This translates to a productivity of 16.8 MT/ha, and 119 kg produced per capita.

Despite the huge potential for domestic production, there is also considerable import of potato to the tune of NPR 5-8 billion annually in the past five years.

Data indicate that potato production increased by 42 percent in the past ten years (Figure 8.8).



Figure 8.8: Annual production of potato (MT) and area under cultivation (Ha) since 2013/14

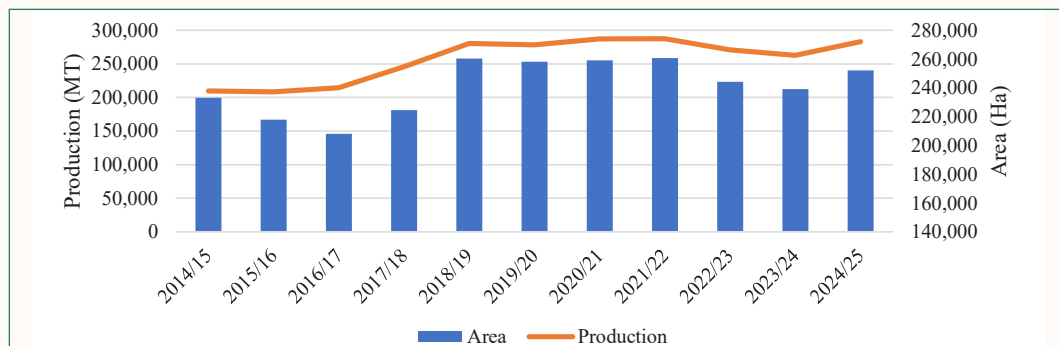


Source: MoALD (2025) as cited in MoF (2025)

Oilseed

Some 384,000 MT of oilseed was produced in 2024/25 and the data indicate a decline in production in the past five years (Figure 8.9).

Figure 8.9: Annual production of oilseeds (MT) and area under cultivation (Ha) since 2013/14



Source: MoALD (2025) as cited in MoF (2025)

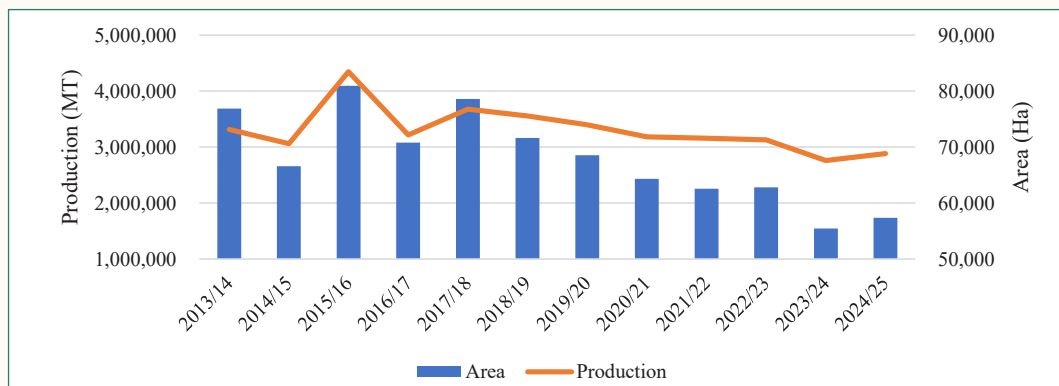
Sugarcane

During the ten-year period, the area under cultivation has decreased by 14 percent, while the production has decreased by 6 percent. Over the years, the situation in the country has not been encouraging for sugarcane farming and thus problems voiced by the farmers have



been common scene in Nepal. This may be attributed to the declining trend in the production of sugarcane, thereby increasing reliance on imports for sugar consumption.

Figure 8.10: Annual production of sugarcane (MT) and area under cultivation (Ha) since 2013/14



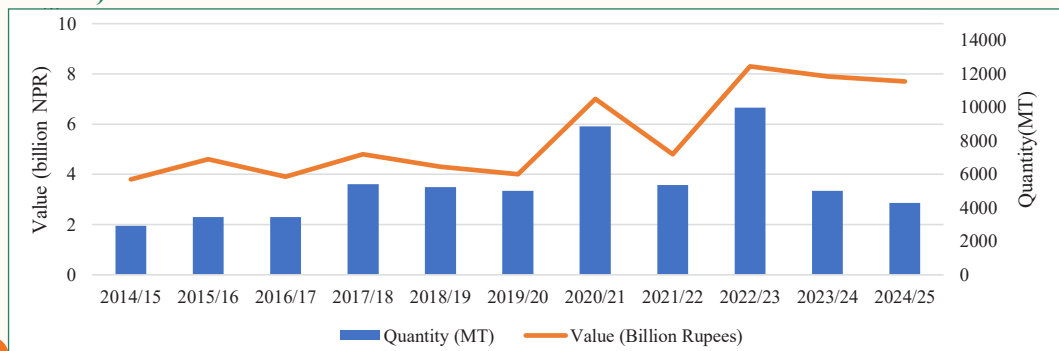
Source: MoALD (2025) as cited in MoF (2025)

Cardamom

Nepal is among the top five producers of cardamom in the world and is one of the top five exporters. In 2024/25, Nepal exported about 4,300 MT of cardamom worth about NPR 7.6 billion. Reports indicate that as much as 95 percent of cardamom produced in Nepal is exported to India (Budhathoki, 2024), and the volume of export has been fluctuating depending on the international market demand, prices and the local production.

There is a potential and need to increase production and also to increase the consumption of cardamom in Nepal by using it in food items (for example, replacing imported green cardamom, or Sukmel, with home-grown large cardamom).

Figure 8.11: Annual export of cardamom (MT) and value of export (NPR billion) since 2014/15





Source: MoALD (2025) as cited in MoF (2025)

Other cash crops

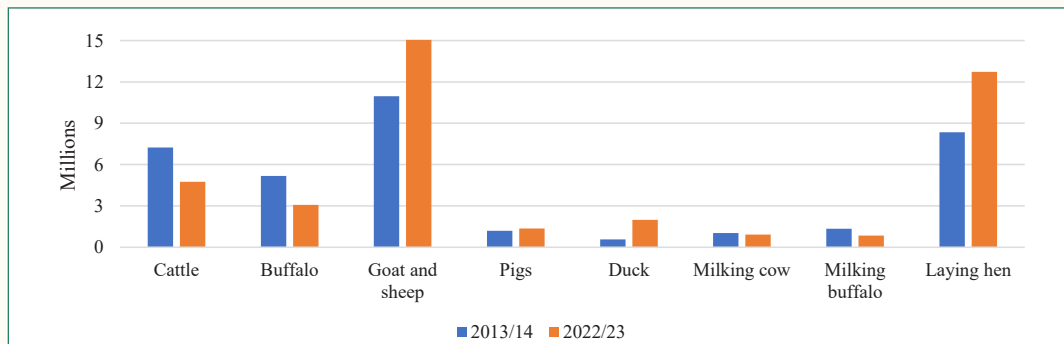
Coffee, tea and honey are other significant cash crops. Nepal has been exporting some coffee and tea, though there have been challenges such as inadequate production to meet the demand (particularly for coffee), lack of proper market access (tea) and quality assurance in compliance with international standards.

Livestock and fisheries

There have been significant changes in the livestock situation in the past decade. While there has been a sizeable decrease in the number of cattle and buffalo, there has been an increase in goat, sheep and poultry (Figure 8.12). This is in line with the increased availability and consumption of meat and eggs in Nepal, as explained earlier in Chapter 4.

Milk production increased from 1.7 million MT in 2014/15 to 2.7 million MT in 2024/25 (an increase of 56%). During the same period, total meat production increased by 51 percent from 301,000 MT to 443,000 MT, and egg production by 94 percent from 873 million to 1.7 billion. Among the meats, there has been a remarkable increase in chicken production, amounting to almost a four-fold increase from 45,500 MT to 181,000 MT.

Figure 8.12: Number of different livestock in Nepal in 2013/14 and in 2022/23

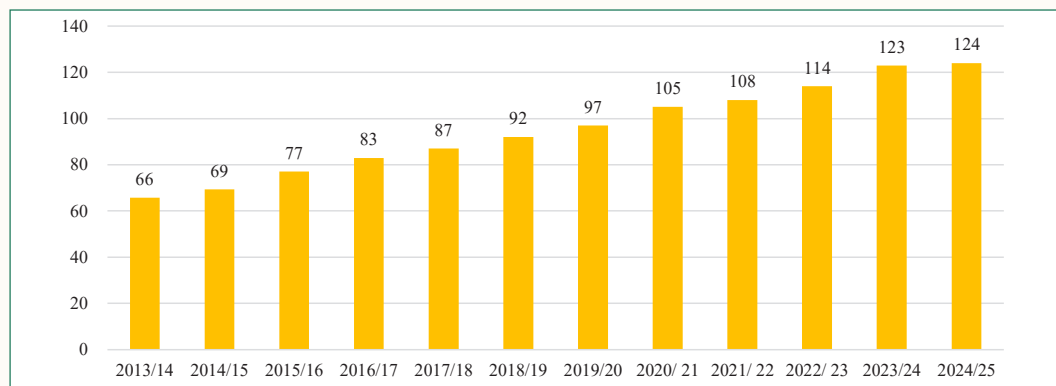


Source: MoALD (2024)

Nepal, being a landlocked country, can be inferred to be not particularly competitive for large-scale fisheries compared to countries with coastal areas. However, rivers and lakes are abundant, and thus considerable scope for the expansion of freshwater fishery practices exists. A remarkable increase (80%) has been observed in the last ten years in fish production in Nepal, with total production increasing from 69,000 MT in 2014/15 to 125,000 MT in 2024/25 (Figure 8.12). This has been possible due to increasing practice of fish farming in ponds, in addition to fishing from natural water bodies including rivers and lakes.



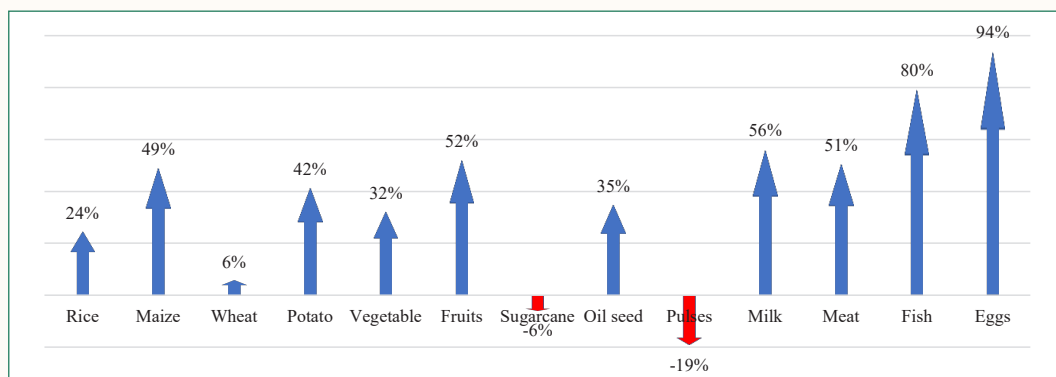
Figure 8.13: Annual fish production in Nepal (thousand MT) since 2010/11



Source: MoALD (2025) as cited in MoF (2025)

A summary of change in production of different food items in the last ten years is presented in Figure 8.14.

Figure 8.14: A summary showing change in production of key food items from 2014/15 to 2024/25



Source: MoALD (2025) as cited in MoF (2025)

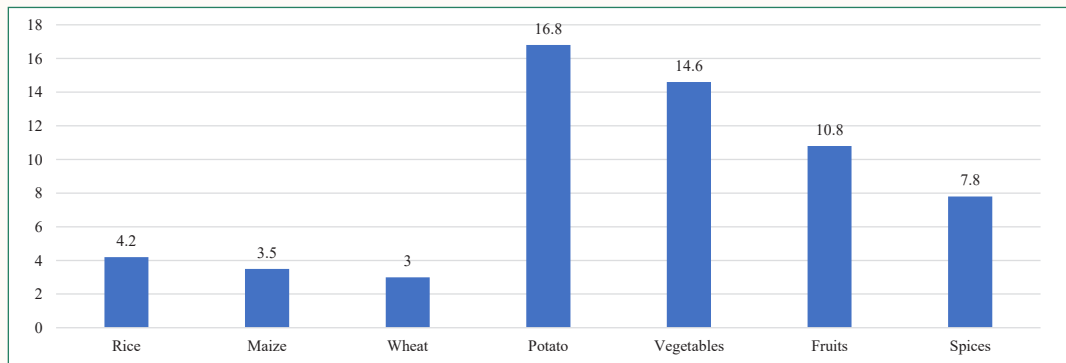
The Choice of Crops

Traditionally, farmers have been practising subsistence farming in Nepal, cultivating different types of crops, including cereals, vegetables and fruits and maintaining some livestock. Farmers now have the option to choose between different crops due to improving market integration, considering the potential economic return, bearing in mind the yield



and suitability for a given area. Among the many variables, one consideration would be the production per hectare for different crops. For instance, considering the average productivity in Nepal, 4.2 MT of rice can be produced per hectare of land, while the productivity per hectare for potatoes is 17 MT. Similarly, yield for vegetables stands at 14 MT and 10.8 MT for fruits (Figure 8.15).

Figure 8.15: Average productivity (MT per hectare) of different crops in Nepal in 2023/24



Source: MoALD (2025) as cited in MoF (2025)

Key Challenges and Opportunities in the Agriculture Sector

Nepal relies entirely on imports for chemical fertilisers, a critical issue that hinders agricultural productivity. Despite the government allocating nearly half of its annual agriculture budget for fertiliser imports, Nepali farmers often do not receive them in time due to inefficiencies in the procurement and distribution process. Ensuring the timely availability of fertilisers to the farmers either through domestic production or through streamlined international procurement is important. This can be complemented by promoting decentralised organic fertiliser production at the local level. Such localised initiatives can enhance fertiliser availability, reduce dependency on imports and support sustainable farming.

Post-harvest losses in Nepal are substantial, with estimates ranging between 15 percent to 40 percent due to inadequate storage, poor transportation and inefficient market systems. Studies suggest that cutting this loss in half could make Nepal nearly self-sufficient in food production (Gauchan, 2024). This can be addressed through better storage facilities, improved supply chains and farmer training in post-harvest management.



The use of modern farming practices and technological advancements are crucial for transforming Nepali agriculture. The development and dissemination of high-yielding crop varieties, expanding reliable irrigation systems and appropriate farm mechanisation, tailored to Nepal's diverse geography and socio-economic conditions, can significantly boost agricultural productivity. However, agricultural extension services in Nepal have limited reach, covering only about 25 percent of farmers (Ghimire et al., 2021), leading to inefficiencies in both field crop and livestock production systems. Strengthening Nepal's agricultural extension system and fostering strong linkages between academia, research and extension services is essential for modernising agriculture and enhancing productivity.

The migration of youth from the hills to the Terai, to major cities within the country and abroad has led to the fragmentation of agricultural land in the Terai and urban areas, as well as land absenteeism in the hills. As a result, a significant portion of arable land in Nepal remains fallow due to the absence of proper tenancy arrangements and labour shortages during peak farming seasons. Encouraging smallholder farmers to cultivate these lands through well-defined tenancy policies may boost food production and support rural livelihoods. Establishing structured agreements between landowners and tenants will help ensure the effective use of idle land for farming. Additionally, promoting contract and lease farming through supportive policies can further enhance land productivity and contribute to a more sustainable agricultural system.

Allocations of more budget by the Government, coupled with strong governance practices and meaningful coordination among the government institutions at all three tiers of government and all stakeholders, is essential for meaningful progress in agriculture. Effective policies and transparent implementation mechanisms are needed to support diverse agricultural activities such as crop farming, livestock, poultry, fisheries, horticulture and medicinal plant cultivation.

The increasing impact of climate change demands investment in resilient agricultural infrastructure, including irrigation systems, rural roads and climate-smart farming practices. Implementing climate adaptation strategies can enhance productivity while mitigating risks associated with erratic weather patterns.

Productivity of crops and livestock in Nepal is lower than the international standards, and thus, there is a significant opportunity to increase production, generate more income for the farmers and promote local agribusinesses.

Some of the key challenges and opportunities identified for the agriculture sector in Nepal are presented in Table 8.1.



Table: 8.1 Key challenges and opportunities of Nepal's agriculture sector

Key Challenges	Opportunities
Inadequate Inputs: Irrigation: Less than half of the agricultural area in Nepal has access to perennial irrigation, and thus, agriculture is highly dependent on the monsoon rain. Fertiliser: Nepal relies entirely on imports for chemical fertilisers. Despite the government allocating nearly half of its annual agriculture budget for fertiliser imports, farmers often do not receive them in time and in adequate quantity due to inefficiencies in the procurement process. Seeds: Crop farming is dependent on a large volume of imported seeds (mostly hybrid) and saplings. Saplings of draft varieties of apple are mostly imported due to the limited supply from nurseries inside the country Declining soil fertility: Poor soil management practices and low use of both organic and chemical fertiliser compared to crop requirements lead to a gradual decline in soil fertility. Breeding: Lack of breed improvement facilities and lack of modern breeding techniques and genetic improvement programs in the livestock and fisheries system. Scattered small-scale production: Average land holding per household in Nepal is less than 0.5 Ha and subsistence farming is still dominant, particularly in the hills and mountains, thus posing productivity challenges due to economies of scale. Scattered small-scale production of vegetables and fruits makes it difficult to assemble truckloads of produce, leading to high marketing costs.	Abundant water resources: Nepal's rivers, lakes, and ponds, if harnessed properly, provide opportunities for agriculture, livestock and aquaculture. Under construction irrigation systems: There are several large-scale irrigation systems, such as the Bheri Babai Diversion Multipurpose Project (51,000 Ha), Rani Jamara Kularia Irrigation Scheme (20,300 Ha) and Sunkoshi Marin Diversion Multipurpose Project (122,000 Ha). If these are completed in time, and along with the rehabilitation of farmer-managed small-scale irrigation systems, they can significantly reduce dependence on monsoon rains and enhance productivity. Fertiliser: There is scope for increasing crop production by improving the availability of chemical fertiliser either through timely international procurement or domestic production. Also, there is potential for increasing production through soil management practices. Organic farming: The growing global demand for organic products presents an opportunity for Nepal to promote organic farming, particularly in the mid-hills and mountainous regions, where the use of chemicals is still low. Post-harvest loss reduction: There is an opportunity for reducing post-harvest loss, which currently is very high in Nepal, ranging from 15 percent to as high as 50 percent. Reducing post-harvest loss will effectively mean an increase in the net availability of food. Export potential: Nepal has the potential to export quality high-value agricultural products (fruits, vegetables, non-timber forest products, dry meat, dairy products, tea, coffee, etc.) and other value-added products including niche products to neighbouring countries like India and China, and international markets.



Key Challenges	Opportunities
Shortage of labour and fallow land: Internal migration from the hills to Terai, rural to urban areas and to foreign countries has resulted in a shortage of adult males and thus affecting the agriculture, with significant areas being uncultivated.	Growing demand for nutritious food: Rising awareness of nutrition is associated with increasing consumption of fruits, vegetables and livestock products, thus creating market demand. In addition, there is a potential to link local production with the home-grown school meals programme.
Limited adoption of advanced practices and technologies: Most farmers lack access to and knowledge on modern tools and technologies such as farm mechanisation, high yield varieties, use of digital technology and precision farming.	Agro tourism: Nepal's beautiful landscape, along with agriculture, provides opportunities for agro-tourism that links agricultural production and/or processing with tourism to attract visitors to a farm or other agricultural businesses for recreation, entertainment or education to generate additional income.
Damage by wild animals: With the increase in forest cover, there is an increasing prevalence of cereals and horticulture being damaged by monkeys and wild boars.	Youth engagement and entrepreneurship: Encouraging youth to engage in agriculture by introducing innovative practices and agribusiness models, such as farm mechanisation, greenhouse cultivation and advanced technologies like mechanized farming and precision agriculture, can revitalise the agriculture sector and boost entrepreneurship. It can also help Nepal's young workforce to remain inside the country.
Inadequate extension service: Agricultural extension services in Nepal have low coverage, reaching only about 25 percent of farmers, thus limiting the farmers' capacity for adopting practices for enhanced production.	Technological advancements: Adequate supply of improved seeds and breeds, fertilisers, feeds and veterinary services, as well as modern farming techniques, can significantly boost yields of field crops and livestock systems. Digital tools and precision agriculture can help farmers make informed decisions and optimize their resource use.
Market access: Inadequate road network, market yards and storage facilities are associated with high post-harvest losses, supply chain inefficiencies and low profitability. A big difference exists between the farm gate price and the retail price paid by the consumers. There are frequent cases when the local farmers cannot sell their products, while the big markets are supplied with imported vegetables.	Extension Services: Institutionally, all rural and urban municipalities have embedded extension units. Strengthening these institutions' technical and administrative capacity can enhance the quality and coverage of agricultural extension services.
	Market access and value addition: Strengthening market linkages at national, regional and global levels, addressing supply chain inefficiencies and promoting value-added agricultural products can enhance integration into local and global value chains, ultimately increasing farmers' incomes.



Key Challenges	Opportunities
Climate change: Extreme weather events (floods, landslides, drought and forest fires) are now the new normal and affecting the agriculture sector. Further, the frequent prevalence of pests and diseases in crops and livestock is observed due to the changing climate. Safe food production: Most farmers lack knowledge of the adoption of good agricultural practices and required safety measures, such as the use of chemical fertilisers and pesticides. Policy and institutional constraints: Weak implementation of agricultural policies, lack of coordination among government agencies and insufficient investment in research and development hinder the growth of the agriculture sector.	Climate-smart, sustainable agriculture: Adoption of climate-resilient crops and livestock systems using indigenous landraces of crops and livestock for conservation farming and integrated farming systems can ensure long-term sustainability. Policy support: Opportunity exists for a more coordinated policy at the federal, provincial and local levels to promote agriculture, including investment, marketing and promotion of the agribusiness industry, creating opportunities for farmers and entrepreneurs.



Agricultural Markets and Trade

Summary

- There has been a marked improvement in market access in the past few decades due to improved road connectivity, with all districts now connected by motorable roads.
- In terms of international trade, there has been a rapid increase in the import of food in the last 10-15 years. Trade deficit on food items has increased from NPR 43 billion in 2012/13 to NPR 204 billion in 2024/25.
- Overall, almost two-thirds of Nepal's trade is with India (63% of imports and 68% of exports), followed by China (18% of imports, 2% of exports), thus pointing to the need to make efforts towards trade diversification.
- Nepal has significant export potential for commodities with a unique advantage, such as some cash crops, herbs, fruits and vegetables and non-timber forest products, which need to be tapped.

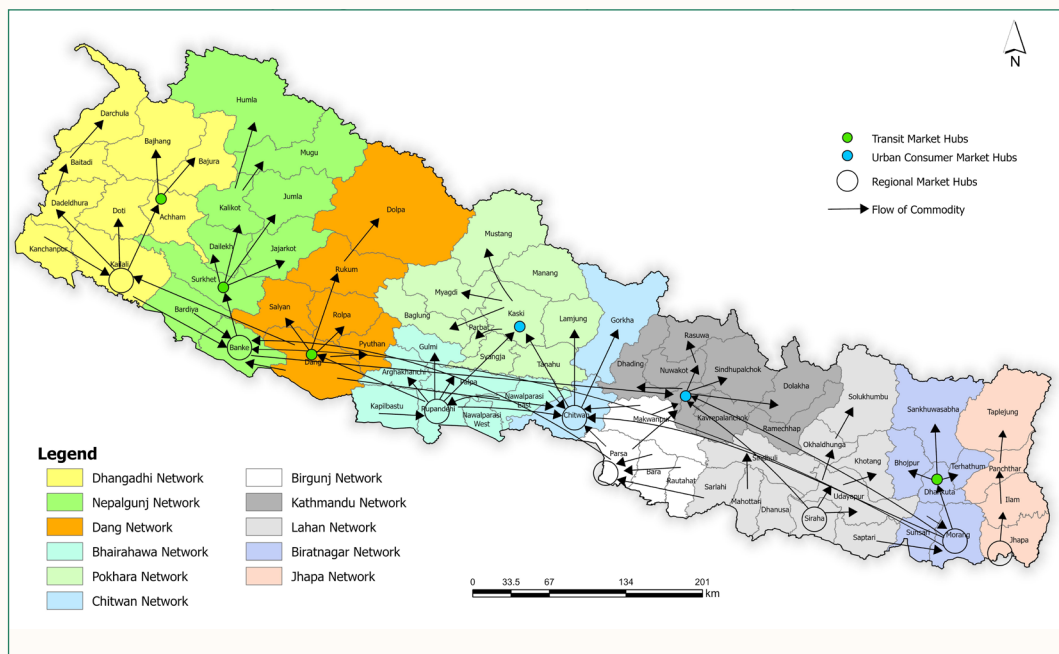
In the past few decades, there has been a marked improvement in road connectivity across the country. All the district headquarters are now connected by motorable road. Besides, there has been a massive proliferation of roads, including in the previously rural areas, though there are questions about the quality of roads and the environmental consequences of haphazard road construction. Nevertheless, most people now have access to commodity and agricultural markets, which means food is now more readily available, even in rural areas.

Market development in Nepal is mainly a function of the demand, particularly from urban consumers and the supply chain linking those with the production areas. Historically, the market networks depended heavily on road access, and also determined the location of major market hubs. The market hubs and networks have been evolving over time, catering to the consumers in the catchment areas.

Figure 9.1 provides an overview of food grain markets in Nepal and the flow of commodities from production areas to consumers across the country since 2007. Although there has been a significant expansion of the road network since then, the overall pattern of major markets and supply routes remains mostly unchanged.



Figure 9.1: Nepal's food grain markets and flow of commodities, showing catchment areas served by different market hubs



Source: Adapted from WFP & FAO (2007), with adjustments made to reflect the present situation

Due to better access to markets throughout the country, a significant positive impact has been observed in the food security of the households in the rural areas. For instance, in the early 2000s, in many mountain districts of what is now Karnali or Sudurpaschim provinces, the transport cost of rice was several times more than their price in Terai, making it practically unaffordable for the poor households. Similarly, because of the expanded road networks and relative ease of transport facilities, farm produce from rural areas are regularly supplied to major urban areas in the country. Apples from Mustang, Jumla or Dolpa, beans from Mustang, Jumla or Kalikot, or potatoes from Solukhumbu or Mustang are now available in major urban market hubs.

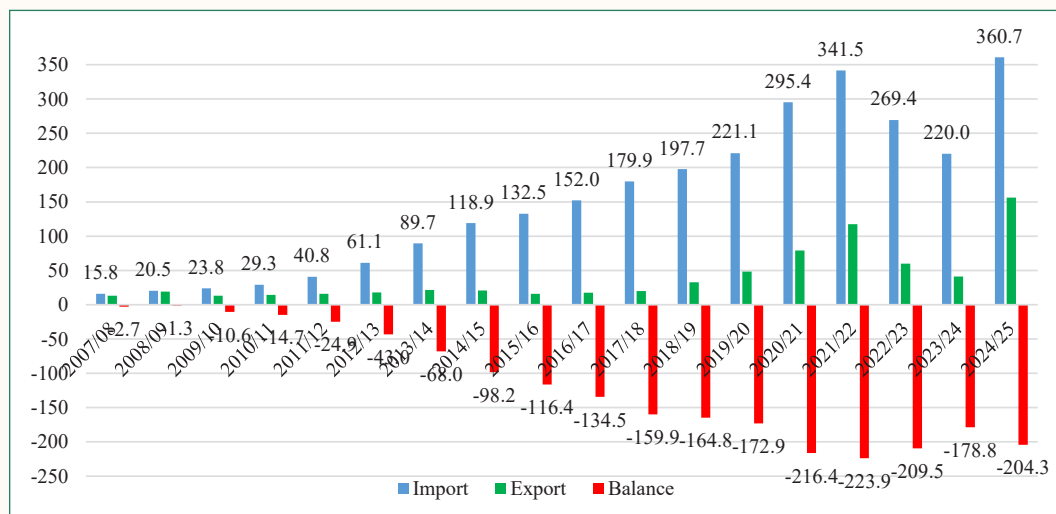
These expanded road networks have also facilitated the easy passage of young people seeking to migrate. Additionally, there has been a decline in the attraction to farming, leading to an increase in the area of uncultivated agricultural lands. Furthermore, there has been a growing tendency for rural households to rely on imported food instead of producing locally.



International Trade

Nepal used to export a significant amount of food in the 1960s. By the late 1980s, the food production was not enough for its population. Import of food has been growing slowly since then, but a steep increase has been observed in the past fifteen years or so. Fast forward to 2025, Nepal is now spending more than NPR 200 billion annually on importing food. Food trade deficit, comprised of trade in food and live animals, has ballooned from NPR 2 billion annually in 2008/09 to about NPR 224 billion in 2021/22 (Figure 9.2). Thus, it can be seen that Nepal's production could not keep pace with the increasing demand of the growing population, at a time when the per capita consumption in Nepal has increased significantly over the past few decades.

Figure 9.2: Trends of annual import, export and trade deficit for food items (amount in billion NPR)



Source: Department of Customs(2025)⁶

As per the data from India's Agricultural and Processed Food Products Export Development Authority (APEDA), in the year 2023/24, Nepal imported 1.7 million MT of agri-products worth USD 654.6 million including USD 321.56 million of cereals from India alone.⁷ The

6. Considering HS codes 01-21: does not include beverages, alcohol and tobacco, and oil

7. Estimates considering exchange rate 1 USD = NPR 135. International price of grains: (a) USA, Rice (US No. 2, 4% Long Grain) @ NPR 100.81 per kg, and other rice (average of Vietnam, Thailand and Pakistan) @ NPR 72.24 per kg, 9; (b) Wheat @ NPR 35.4 per kg (average of USA (Gulf), Wheat (USA No. 2, Hard Red Winter, European Union (France), Wheat (Grade 1, Rouen) and Canada (St Lawrence), Wheat (CWRS, 13.5%); (c) Maize @ NPR 26.14 (average of USA (Gulf), Maize (US No. 2, Yellow), Argentina Maize (Up River) and Brazil (Paranagua), Maize (feed) and (d) Millet @ NPR 80 per kg).



total imports of all agricultural products from India were worth USD 917.71 million in the same fiscal year. Based on the average export prices of grains from the international market, it was estimated that Nepal imports on an average about 1.4 million MT of cereals (0.6 million MT of rice, 0.6 million MT of maize, 0.2 million MT of wheat and 9,000 MT of millet) every year.

Table 9.1: Cereals, fresh fruits and vegetables imported from India categorized under APEDA products

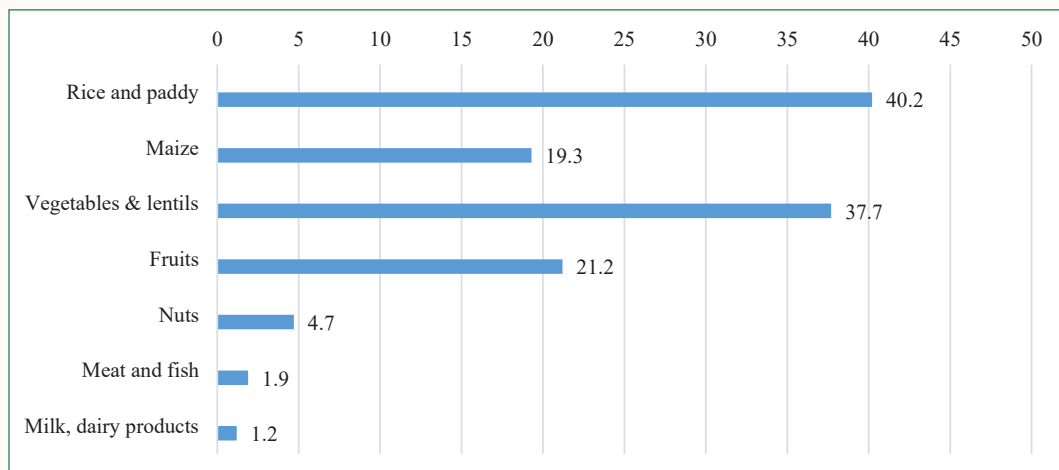
S.N.	Particulars*	USD (million)					
		2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
1.	Cereals						
1.1	Basmati rice	4.44	5.87	6.91	15.43	38.56	51.07
1.2	Non Basmati rice	281.72	242.6	396.01	458.01	245.38	103.92
1.3	Maize	104.6	97.3	118.14	152.99	119.89	104.35
1.4	Wheat	46.84	44.49	83.23	81.87	16	56.23
1.5	Millet	1.99	4.3	6.2	5.93	5.54	6.08
	Subtotal	441.59	394.56	610.49	714.22	425.37	321.65
2	Fresh fruits and vegetables						
2.1	Fresh onion	21.02	13.18	22.22	37.48	33.37	18.23
2.2	Fresh vegetables	48.07	52.95	56.2	59.12	54.85	41.46
2.3	Fresh fruits	28.25	36.49	32.66	49.34	43.22	44.16
2.4	Fruits and vegetable seeds	2.03	1.44	2.3	2.77	1.95	1.34
2.5	Floriculture	0.18	0.4	0.81	1.03	0.73	0.9
	Subtotal	99.55	104.46	114.19	149.74	134.12	106.09
	Total	541.14	499.02	724.68	863.97	559.49	427.74

* Note: It only includes fresh products excluding (i) live and processed animal products including milk products, (ii) processed cereals, cereals perpetuates and confectionaries, (iii) pulses and legumes, (iv) processed fruits, vegetables, cashew and nuts, and pulp products, and (v) cereals and other crops seed including grass, and (vi) betel leaf and other miscellaneous agricultural products.

Source: APEDA (2025)

As per the data from the Department of Customs, Nepal imported rice and paddy worth NPR 40.2 billion, maize worth 19.3 billion, vegetable and lentils worth 37.7 billion and fruits worth 21.1 billion in 2024/25 (Figure 9.3). The imports of meat (worth NPR 1.9 billion) and milk and dairy products (worth NPR 1.2 billion) indicate a move towards self-sufficiency with decrease in import volumes from higher values seen in earlier years.

Figure 9.3: Nepal's major net food imports in 2024/25 (amount in billion NPR)



Source: Department of Customs (n.d.)

In addition, the data show a massive import of oil and fat (NPR 156 billion) in 2024/25. This includes NPR 109 billion worth of crude soya bean oil (from many countries including Brazil: 10 billion, Argentina: 8.9 billion, Ukraine: 3.2 billion), crude sun flower oil worth NPR 29 billion (20.1 billion from Ukraine and 8.9 billion from Argentina), and 6.8 billion of crude palm oil (from Thailand, Indonesia and Malaysia). Most of this is exported to India after some 'processing' in Nepal, as the data from the Department of Customs indicates export of oil and fat worth NPR 122.6 billion in the same year.

These figures suggest that Nepal's agricultural sector has not been performing well, even though the country has adopted 'food sovereignty' as its major policy in various periodic plans with the aim of making the country self-sufficient in food production.

Thus, it should be a high priority for Nepal to attain self-sufficiency in food production and even work towards becoming a net food exporter. To achieve this, concrete steps are needed. The marketing of domestic products must be facilitated so that farmers have better incentives to produce. There are many instances while many local farmers struggle to sell their vegetables, markets in Kathmandu and other urban areas are supplied with imported produce. A mechanism should, therefore, be established to ensure that local producers have adequate access to markets. At the same time, Nepal should promote the scaled-up production and marketing of food commodities with a comparative advantage - such as cinnamon, ginger, tea, coffee, herbs, and selected vegetables and fruits - for export. Provisions should also be made to enable value addition to these products before marketing them abroad.



Moreover, in order to protect domestic food production, there may be a need to revisit existing international and bilateral trade agreements with various countries, particularly with the neighbours.

In the Terai districts, due to the porous border with India, a significant informal trade is in practice across the border. The practice is so pervasive that as some studies indicate, informal rice import could be as much as 25-40 percent of the formal imports (Singh, 2024). Farmers in the Terai region are at a disadvantage due to their inability to compete with producers from India, where farmers are benefiting from subsidised or cheaper agricultural inputs.

Need for Trade Diversification

Nepal's trade largely depends on India, followed by China. Out of NPR 1.6 trillion worth of imports in 2023/24, almost two-third (63%) was from India, 18 percent from China and only 19 percent from the rest of the world. Similarly, out of a total export of NPR 152 billion, 68 percent was to India, followed by 11 percent to the USA, 3 percent to Germany, 2 percent to the United Kingdom, 2 percent to China and 14 percent to the rest of the world (Figure 9.4a and Figure 9.4b). In the case of India, informal imports are also significant, and the reported trade figures are likely to be underestimated.

Figure 9.4a: Imports in Nepal from different countries (%)

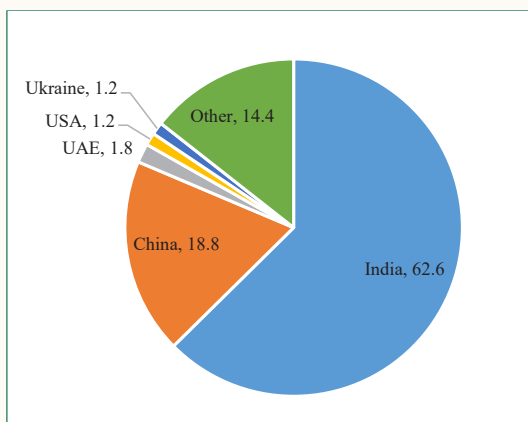
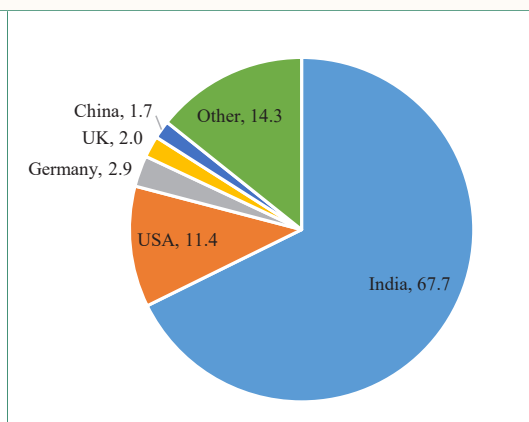


Figure 9.4b: Exports from Nepal to different countries (%)



Source: Department of Customs (2025)



Box 9.1: Export potential of agriculture and forestry related products from Nepal

Nepal, with its rich agro-ecological diversity, has a huge potential for production of different crops, including some unique crops or species with significant export potential. For instance, Nepal used to be the largest exporter of cardamom in the world until some years ago, and there is a good potential to increase its production as well as get higher values for the farmers through value chain reinforcements. Nepal also exports ginger and there is a significant scope for scaling this up with the right interventions. The export potential of Nepal's tea has been well known, and for the last decade and a half, Nepal's coffee has also been gaining a reputation in the international markets.

There is also significant scope for boosting production and exporting vegetables such as different mushroom varieties, citrus fruits, olives, walnuts and floriculture. Similarly, the huge economic potential of Nepal's non-timber forest products is well known. These include, among others, yarsagumba (*Cordyceps sinensis*), chiraito (*Swertia chirayita*) and many other herbs in the mountains, plants used for making special paper such as Argeli (*Edgeworthia gardneri*, known in Japanese as Mitsumata and used for Japanese bank notes) and Lokta (*Daphne papyracea*). Furthermore, with almost half of the country's land covered with forest, Nepal also has the potential to export timber with a proper management system for forest and harvesting forest products.



Economy and Livelihoods

Summary

- Nepal has made significant improvements in reducing poverty. Estimates by NSO indicate that the prevalence of poverty has decreased from 42 percent in 1995-96 to 30.8 percent in 2003-04, 25.2 percent in 2010-11 and 20.3 percent in 2022-23.
- Poverty levels are not uniform. Looking at the spread of the population at the poorest wealth quintile, most mountain districts of Karnali Province and some in Sudurpaschim have more than 60 percent of the population in the poorest group, while this proportion is less than 10 percent in Kathmandu Valley and Kaski district.
- However, the overall macroeconomic situation is far from satisfactory. Nepal's performance has been rather disappointing, with a sluggish growth rate of about 2-5 percent in most years in the last several decades. Nepal's GDP per capita is just over half that of India and about one-tenth that of China.
- With a lack of adequate livelihoods, and high unemployment, the working-age population are increasingly relying on out-migration in search of income opportunities.

While food production and availability of food in the market are important, households' ability to access food is determined by their economic capacity, and thus understanding the country's economy and the livelihoods of the population is important to describe the food security situation. It is particularly important to consider the poverty situation, as poor households are more likely to be food insecure and thus must be taken into consideration in programmes for eliminating hunger.

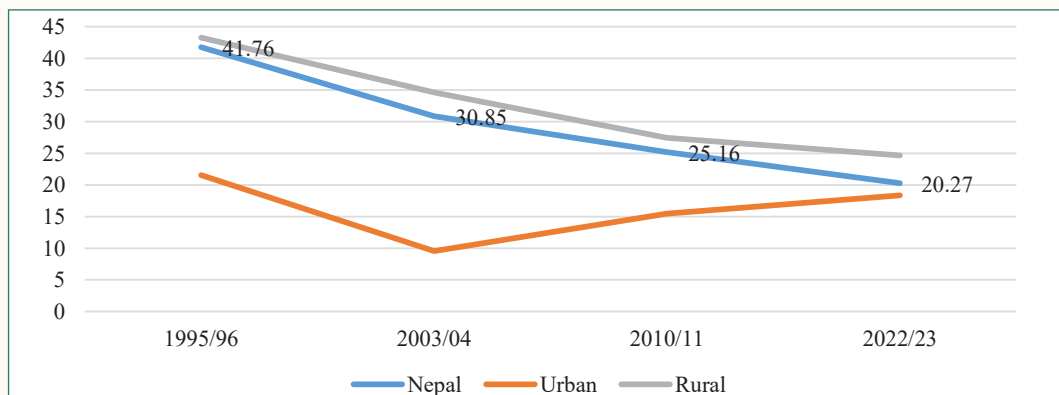
Poverty Trends

Nepal has made progress in reducing poverty, as can be seen from the four available waves of the NLSS. Based on the cost of basic needs (CBN) approach used by the NSO, the prevalence of poverty has decreased from 42 percent in 1995-96 to 30.8 percent in 2003-04, 25.2 percent in 2010-11 and 20.3 percent in 2022-23.⁸ The prevalence of poverty in rural population is higher (24.7%) compared to urban population (18.3%).

8. This is considering the new poverty threshold of NPR 72,908 used in the NLSS 2022/23 wave. If the same threshold used in 2010-11 were applied, the figure for 2022/23 would be 3.57 percent (NSO, 2023).



Figure 10.1: Trends of poverty headcount in Nepal since 1995/96

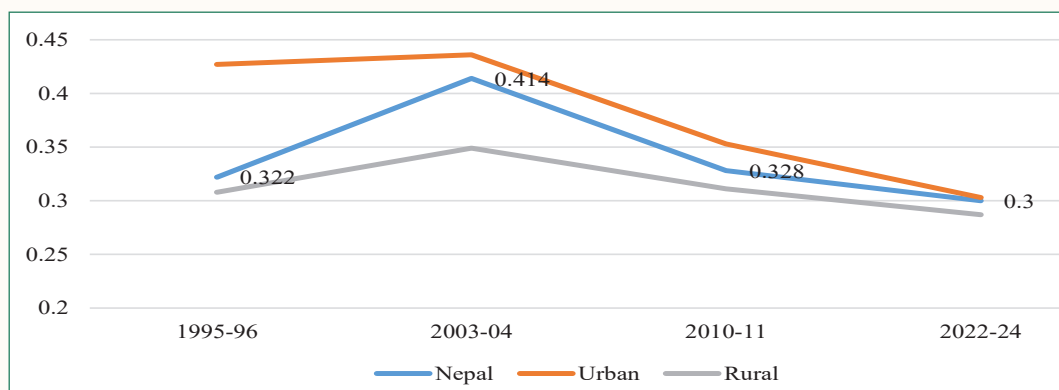


Source: NSO (2023)

It should be noted that the increase in the prevalence of urban poverty, particularly between 2010/11 and 2022/23, is partly due to the reclassification of many previously rural areas into urban municipalities as part of the country's federal restructuring in 2017, as explained in Chapter 6. Considering this, it can be inferred that there is a general trend of decreasing poverty in Nepal both in urban as well as rural areas.

As per the NLSS 2022/23, the GINI coefficient in Nepal is 0.30, which means a relatively moderate level of income inequality. The wealth inequality is less pronounced in Nepal compared to most countries, and an improvement has been observed in the last few decades from 0.414 in 2003/04 to 0.326 in 2010/11 and 0.30 in 2022/23. The GINI coefficient is slightly higher in urban areas than in rural areas.

Figure 10.2: Trend of GINI coefficient in Nepal

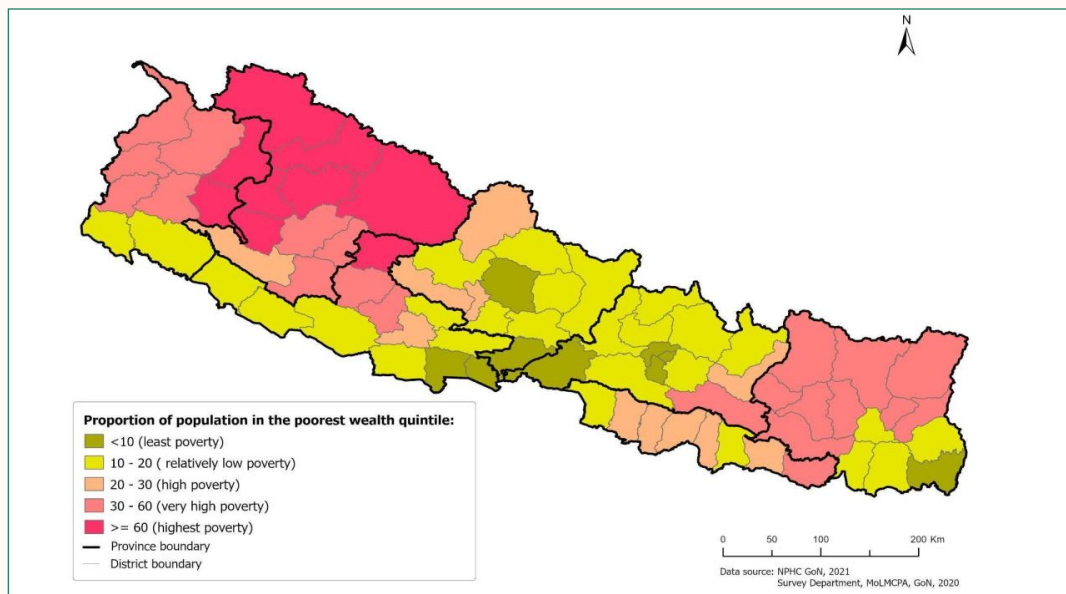


Source: NSO (2023)

Geographic distribution of poverty

While the national poverty level has gone down significantly, there are areas where poverty levels are much higher than the national average. Looking at the spread of the population that belongs to the poorest wealth quintile⁹ in the country (Figure 9.3), it can be seen that most mountain districts of Karnali Province and some in Sudurpaschim have more than 60 percent of the population in the poorest wealth quintile, while Kathmandu Valley and Kaski district have less than 10 percent that belong to the poorest wealth quintile.

Figure 10.3: District-wise distribution of Nepal's population that belong to the poorest wealth quintile



Source: NSO (2023)

Implications on Food Security and Nutrition

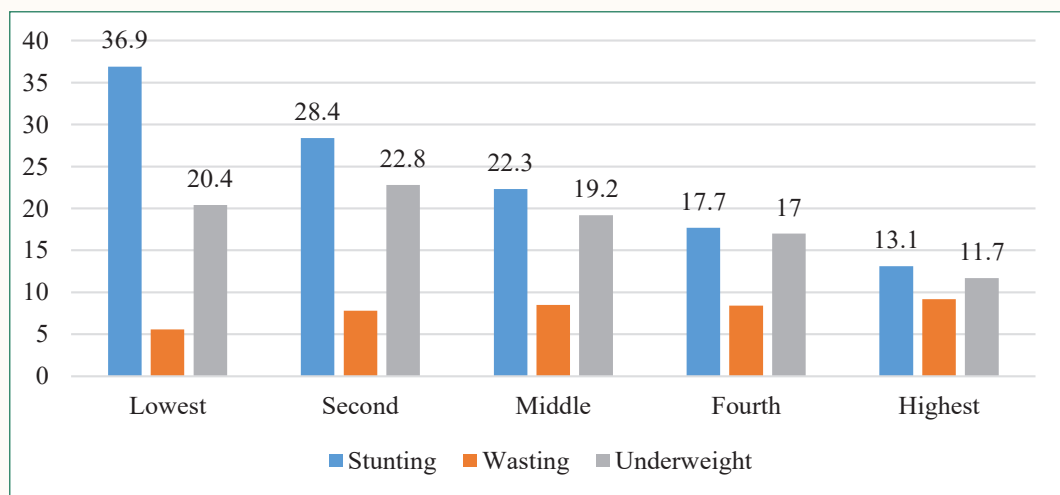
Household economic access to food is a major determinant of food security and nutrition. Households with lower income have difficulty accessing nutritious food. For example, the results from the 2022 NDHS show clearly that households from the lowest wealth

9. The NSO has computed a wealth index with the 2021 national population and housing census data using seventeen criteria, which include nine household assets, four services, and four indicators of dwelling quality. The individuals were then categorised into five wealth quintiles based on the individual wealth index computed.



quintile have the highest prevalence of malnutrition in the children, while those from the richest wealth quintile have a much better situation (Figure 10.4).

Figure 10.4: Prevelence of malnutrition among children of households belonging to each of the five wealth quintiles



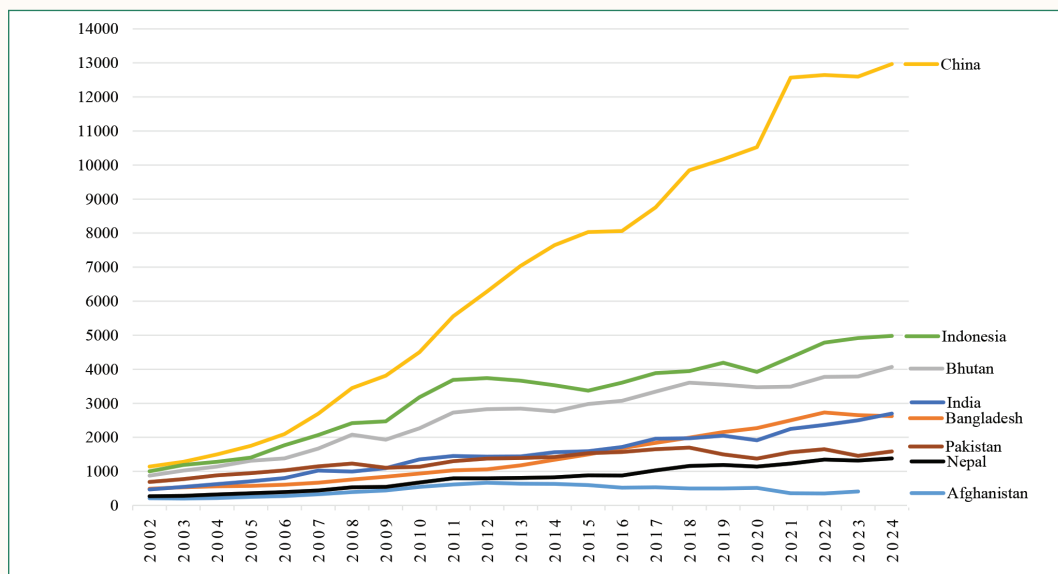
Source: NDHS (2022)

Macroeconomic Overview

While Nepal has made progress in reducing poverty, the overall macroeconomic situation; however, is far from satisfactory. Nepal is a lower-middle-income economy according to the World Bank classification, with a per capita GDP of USD 1,496 in 2025 (NSO, n.d.). Looking at the pace of economic growth, Nepal's performance has been rather disappointing, with a sluggish growth rate of 2-5 percent in most years in the last several decades, at a time when the neighbouring countries have experienced rapid economic growth (Figure 10.4). Nepal is one of the countries with the lowest GDP per capita in Asia and is the poorest in South Asia after Afghanistan. Relative to the country's immediate neighbours, the GDP per capita of China and India are almost ten times and two times that of Nepal, and they continue to have growth rates higher than that of Nepal. Such a poor macroeconomic performance of Nepal is an indication that the political transformation that has taken place in the country has not been translated into aspirations of rapid economic growth.



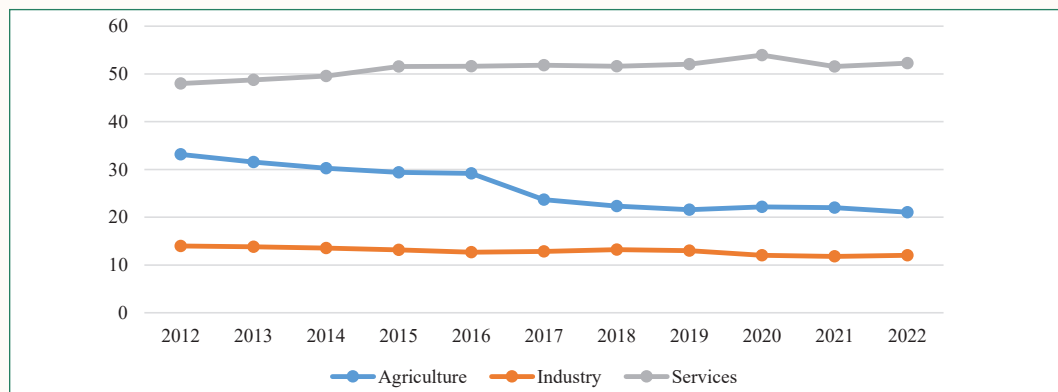
Figure 10.5: GDP per capita of Nepal and selected countries in Asia since 2002



Source: IMF (2025)

As discussed in Chapter 8, Nepal's agriculture has not been performing well, and the industrial and manufacturing sector, instead of thriving, has remained stagnant or in decline. The share of agriculture in GDP is about 22 percent, and that of the industrial sector has declined from 14 percent in 2012 to 12 percent in 2022. The service sector contributes about 52 percent to the national GDP (World Bank, 2023).

Figure 10.6: Share (percentage) of GDP from agriculture, industry and service sectors



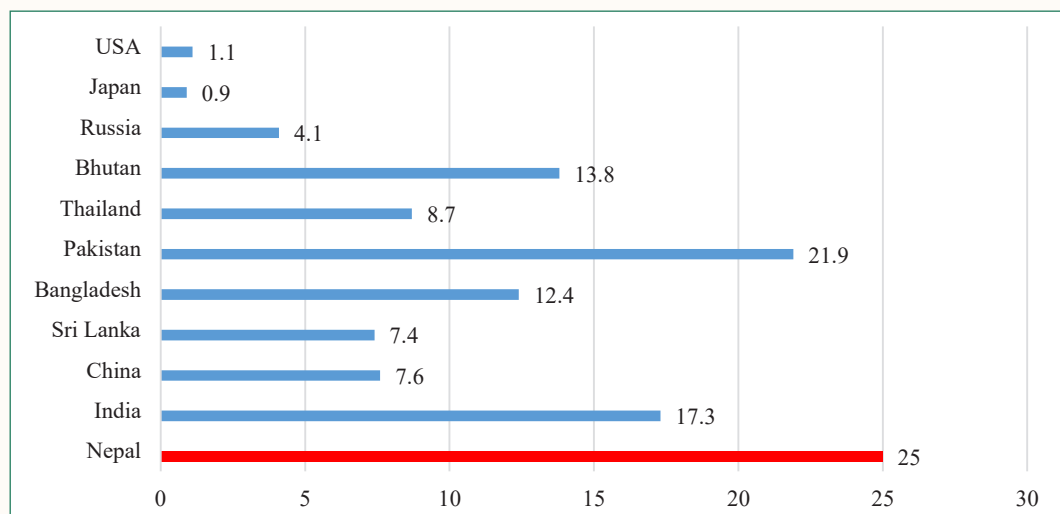
Source: World Bank (2025)



Economic theory suggests that as developing countries progress, manufacturing absorbs a significant portion of the workforce from agriculture. This leads to increased production and consumption, expanding the economy and boosting the manufacturing sector's share while improving agriculture through improved inputs and mechanization.

Developed countries such as the USA and Russia produce far more despite a small proportion of the population engaged in agriculture. The share of agriculture in total GDP may be low, but the value is much bigger in absolute terms. The share is low because the overall size of the economy is large, with much higher contributions from the manufacturing and service sectors. For example, while Russia is one of the biggest producers and exporters of agricultural products, the share of agriculture, forestry and fishing in national GDP is only 4.1 percent. This share is 7.6 percent in China, 17.3 percent in India and 8.7 percent in Thailand, whereas it is 25 percent in Nepal (Figure 10.7).

Figure 10.7: Share (percentage) of agriculture, forestry and fishing in national GDP for selected countries



Source: FAO (2022)

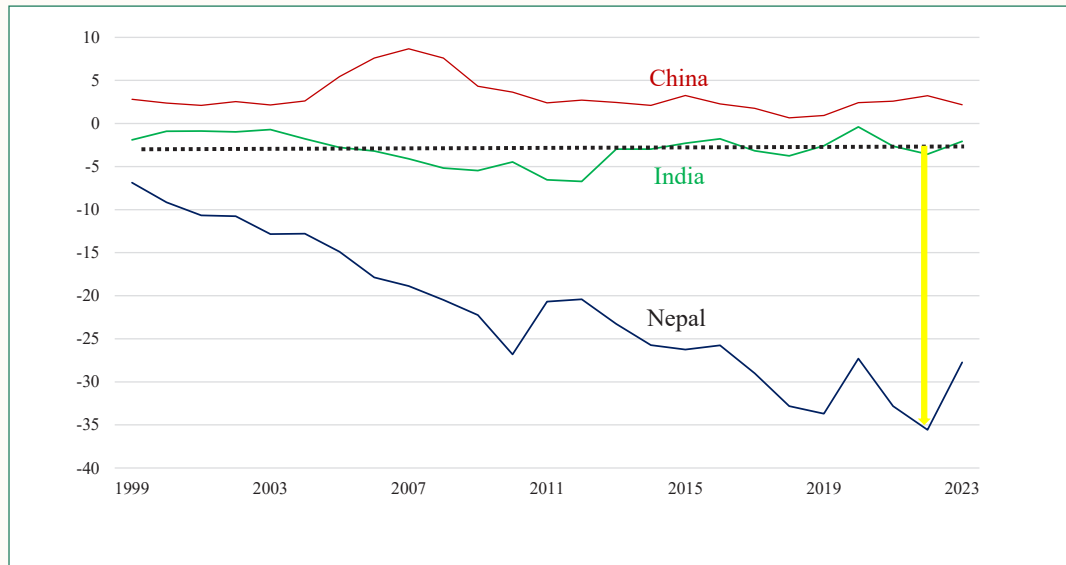
Nepal's sluggish economic growth may also be explained by relatively little investment in capital expenditure (or development sector) compared to the current expenditure. An analysis of the expenditure trend over the past decade reveals that approximately 67 percent of the total annual federal budget is allocated to current expenditure to cover for the government's day-to-day operational costs such as salaries, allowances and administrative costs, while only 15 to 20 percent assigned for capital expenditure vital for development



activities such as infrastructure, agriculture or manufacturing which spur economic growth (NDRI, 2023). Even within these allocated budgets, actual expenditure from the capital expenditure budget is significantly lower than the allocated amount, reflecting the country's poor implementation capacity.

Nepal's economy has been struggling, and the production sector is particularly weak. Consequently, Nepal relies heavily on imports, resulting in significant trade deficits each year. The trade deficit has increased exponentially in the last two decades and has reached more than 30 percent of GDP in recent years (Figure 9.7) from 9 percent in 1999. By comparison, China has a trade surplus throughout, whereas India has a small deficit.

Figure 10.8: Trade balance as percentage of GDP for Nepal, China and India

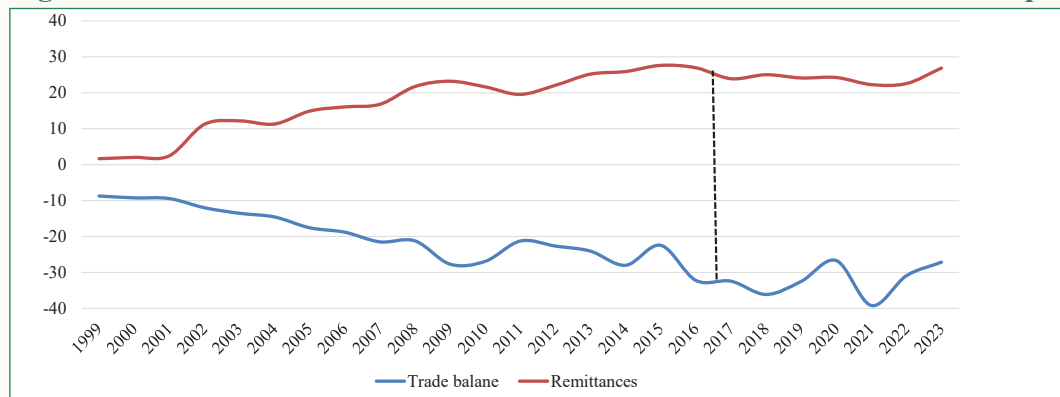


Source: IMF (2024)

Such a high degree of trade deficit would not be fiscally sustainable without the growing inflow of remittances. As explained in the Chapter 11, labour migration to foreign destinations has been one of the major sources of livelihoods for young working-age people of Nepal in the past few decades. Remittance has also been a major source of foreign exchange in Nepal, and until 2015, it was on par to cover for the trade deficits, but not anymore (Figure 10.9).



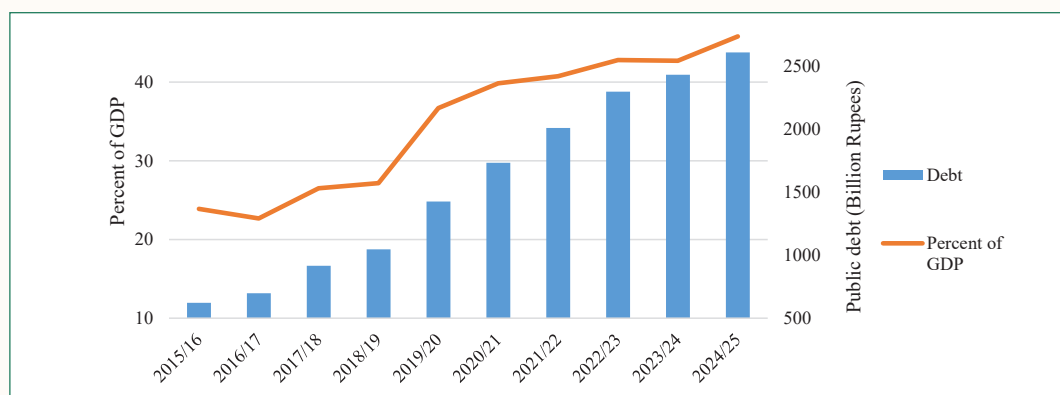
Figure 10.9: Trends of trade balance and remittances as share of GDP in Nepal



Source: IMF (2024)

Over the years, the Government has resorted to internal borrowing to cover annual expenses. For instance, in the 2024/25 fiscal year, the Government raised a public debt of NPR 360 billion, which includes an internal loan of NPR 234 billion and an external loan of 125 billion. In the same year, NPR 305 billion were spent in paying back principal and interest of existing loans – NPR 223 billion (or 73%) for the principal and NPR 82 billion (27%) as interest (Banjade, 2024). The public debt of the Government has been increasing significantly since 2015 following the post-earthquake reconstructions, which has now reached NPR 2.61 trillion, or about 46 percent of the national GDP (PDMO, 2025). Despite this increase in debt, Nepal has not been able to make wise investments in a way to stimulate the economy, generate employment and enhance income opportunities for the population.

Figure 10.10: Trends of public debt in NPR billion and debt as percentage of GDP



Source: NRB (2025)



Given the precarious fiscal situation, the Government has been highly dependent on foreign aid and loans for most of the development activities, and this is making the economy deeply vulnerable. The drastic cuts in global development assistance in 2025 has thus raised big concerns in Nepal. This further complicates the pursuit of the 'economic prosperity' that the various governments have promised, despite the disappointing progress made so far. While attaining economic growth and meeting development goals now seems even more challenging, the global realignment of aid should serve as a wake-up call for the policymakers to design development plans by mobilising internal resources and creating an environment for economic growth with expansion of the productive sector, without being overly dependent on foreign aid.

Livelihoods

High levels of unemployment or underemployment, little employment in the formal sector, and low income are the main challenges faced by the working-age population in Nepal. As per the latest census, among the population aged 15-64 years, some 55 percent of men and 41 percent of women are engaged in agriculture, forestry or fishery work, followed by elementary occupations engaging 16 percent of males and 23 percent of females (Figure 10.10). Other occupations include managers and professionals, service and sales workers, craft and related trade workers, technicians, associated professionals and clerks, among others. While this shows an unemployment rate of only around 5 percent, in reality many of those who are engaged in occupations such as agriculture and elementary occupations are underemployed or not fully employed throughout the year, which makes them economically vulnerable. Data from the 2017/18 labour force survey indicates that 21 percent of the youth in the country are unemployed.

Figure 10.11 Occupations of the population aged 15-64 years by gender



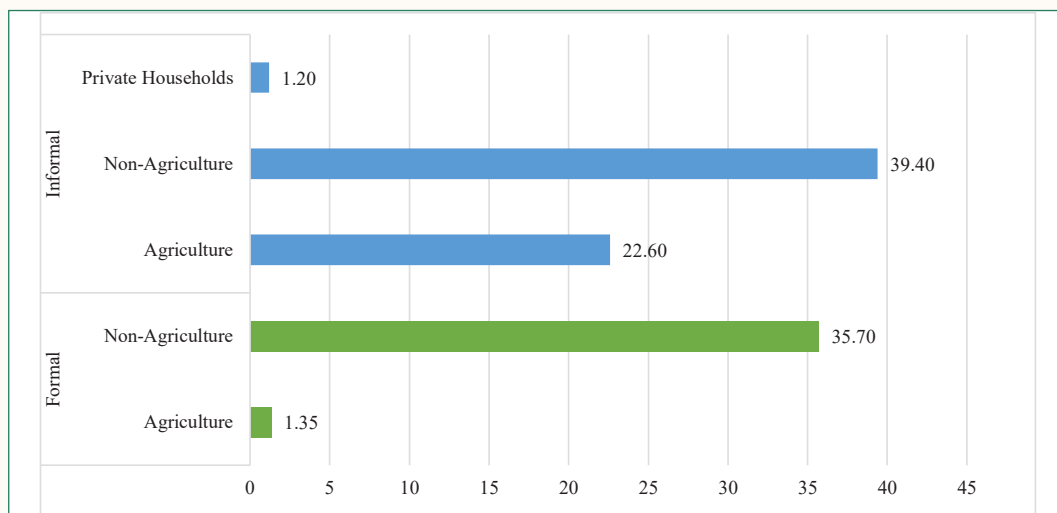
Source: NSO (2022)



A survey by the CBS and ILO (2019) showed that almost two-thirds of the working population aged 15 years or above in Nepal are engaged in informal employment, while only 37 percent are in formal employment. The population engaged in formal employment consists of 35.7 percent in non-agriculture sector and only 1.25 percent in agriculture. Those in the informal employment comprise 22.6 percent in agriculture and 39.4 percent in non-agriculture sector (Figure 10.12). Such a large proportion of the workforce being employed in the informal sector makes them economically vulnerable, posing a challenge to the overall economy.

Around 60 percent of the population in Nepal is young, and as per a recent report by the ILO, every year, some 400,000 new people enter the workforce in Nepal. Out of them, only 11.2 percent can find employment. Thus, many working-age youth have been migrating to foreign countries in search of employment, making the economy highly susceptible to external global shocks.

Figure 10.12: Percentage of employed population aged 15 and above in formal/informal sectors



Source: CBS & ILO (2019)

Migration and Remittances

Summary

- Migration to foreign countries has increased rapidly in the past few decades. Some 750,000 Nepalis obtained permits to work in foreign countries (except India) in 2023 alone. As per the 2021 census, about 2.2 million Nepalis were living in foreign countries, an increase from 1.9 million in 2011. Among them, 34 percent were in India, 37 percent in the Middle East countries, followed by 9.1 percent in ASEAN countries, 9.2 percent in Europe and America and the rest in other countries
- Higher proportion of young migrants from Sudurpaschim Province (90%) and Karnali Province (70%) are reported to be in India, while almost two-thirds (64%) of migrants from Madhesh Province are in the Middle East, and 56 percent from Bagmati Province are either in Europe, Americas (34%) or in the Pacific (22%).
- With the increasing number of migrant population, there has been a rapid increase in remittance inflow to the country, from about NPR 10 billion in 2000 annually to almost NPR 1.5 trillion in 2024. During this period, the share of remittance in the national GDP has increased from less than 2 percent to almost 26 percent in 2025. Nepal is now one of the top six countries with the highest share of remittance on national GDP in 2024.
- Almost three quarters of the remittance received have been used for household consumption, and thus remittances have not contributed to the growth of the productive sector.

Migration as a Coping Strategy

Migration to foreign countries has been a major source of livelihoods for the working-age population, and remittances have been one of the most significant contributors to the national economy in Nepal. Remittances play a pivotal role in uplifting the living standards and resilience of the origin communities, with remittances directly contributing to over 30 percent of Nepal's poverty reduction between 2011 and 2023 (World Bank, 2025).

There is a long history of migration of the Nepali people in search of livelihoods for better income. This dates back to about two centuries, when young Nepalis started going to Lahore for jobs in the British Indian army, when India was under colonial rule, which led to them being called Lahures - a term used now for those going abroad, especially to India, for work. After that, many Nepalis started working in India for other petty jobs. Seasonal migration to India has also been one of the main coping strategies for the food-insecure population,

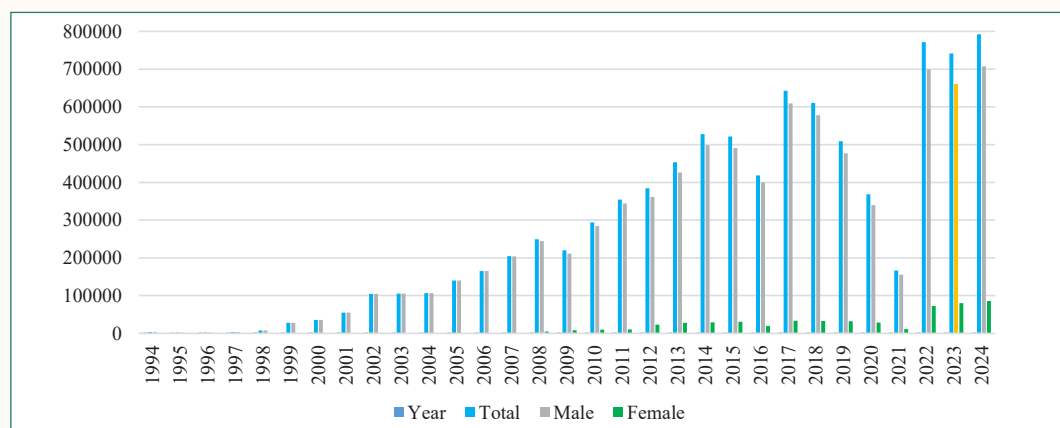


particularly from the mountain districts of Karnali and Sudurpaschim provinces. For example, a 2008 study by NDRI and WFP observed that many rural households there depended on seasonal migration to meet their food security needs, relying on very low-paid casual labour in India. Such a typical migrant earned only about NPR 5,000 in a season by working for 3-6 months (NDRI & WFP, 2008). Such a distress migration has been very concerning and the practice remains to date for many poor households in those areas.

Recent trends

The nature and magnitude of migration have changed significantly in the past few decades. Nepalis now migrate in large numbers to many countries other than India – particularly to Malaysia and Gulf countries. Figure 11.1 shows the trend of migration since 1994 to countries other than India by looking at the labour permits issued by the Department of Foreign Employment. It shows that about 750,000 Nepalis obtained permits to work in foreign countries (except India) in 2023 alone. As per the 2021 census, about 2.2 million Nepalis (were living in foreign countries, an increase from 1.9 million in 2011. A map showing the distribution of Nepali migrants to different destinations around the world is presented in Figure 11.2. Overall, even though it is predominantly the men that migrate, female migration is also increasing. The 2021 census report highlighted that the number of women who migrated to foreign countries has increased by 71 percent in comparison to the previous census. This shift in migration away from India to other countries has helped to generate a large volume of remittances – a crucial factor for the reduction of poverty and food insecurity. However, there are new and different types of vulnerabilities associated with this new trend of migration.

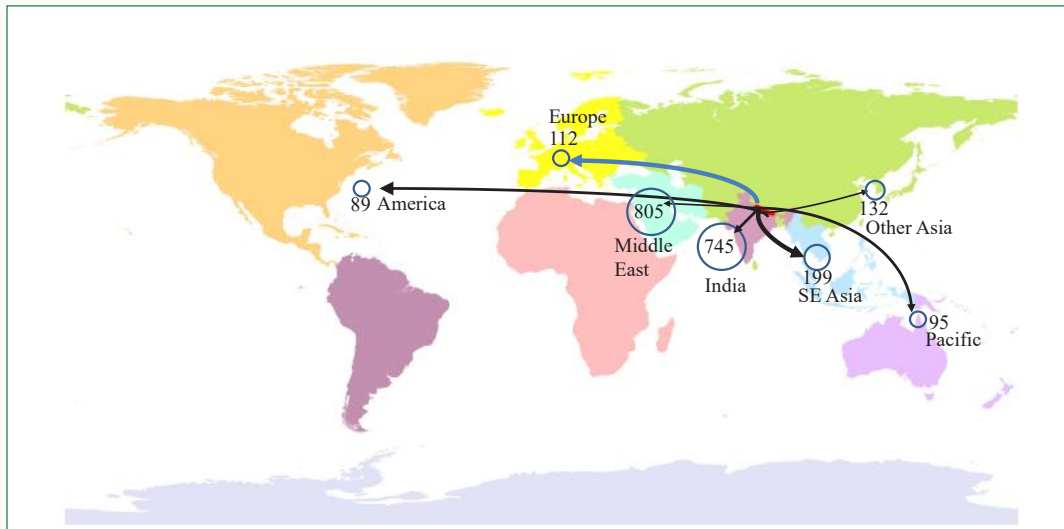
Figure 11.1: Yearly migration trend since 1994 based on the number of labour permits issued



Source: Department of Foreign Employment (2024)



Figure 11.2: Number of Nepali migrants (in thousand) by destination



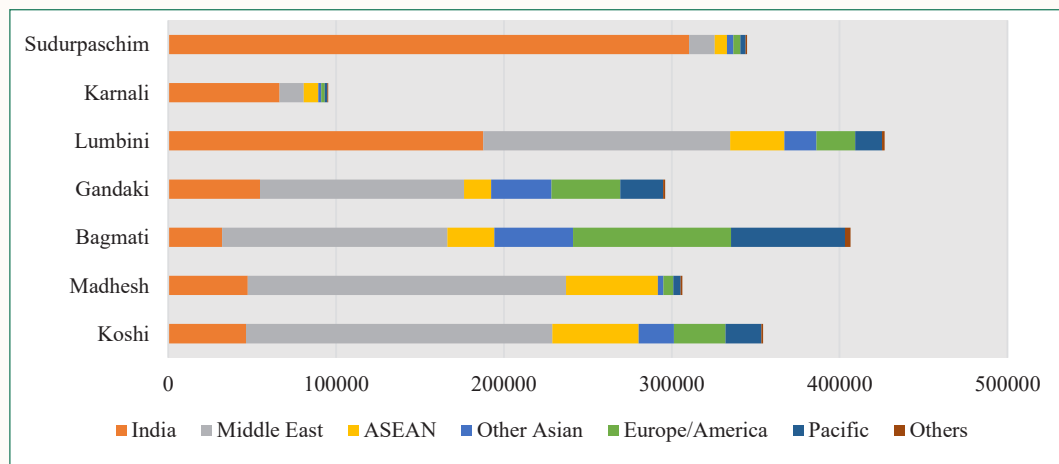
Source: NSO (2023)

Among the 2.2 million absentees, or persons who were reported to be out of the country, in 2021, about 34 percent were in India and 37 percent in the Middle East countries, followed by 9.1 percent in ASEAN countries, 9.2 percent in Europe and America, and the rest in other countries.

There is an interesting pattern in the origins of the migrants and their destinations (Figure 11.3). More than 90 percent of the migrants from Sudurpashchim, 70 percent from Karnali and 45 percent from Lumbini Province are in India, while almost two-thirds (64%) of migrants from Madhesh Province are in the Middle East, and 56 percent of migrants from Bagmati are either in Europe and the Americas (34%) or in the Pacific (22%). This has to be understood in terms of different economic and livelihood contexts in the provinces. For instance, people in the Sudurpaschim and Karnali are suffering from high levels of poverty and food insecurity, are less educated, with low income to afford migration to third countries, and thus many rely on low-cost migration to neighbouring India, often seasonal, for very little income barely able to support their basic household needs. On the other hand, more educated people in Bagmati or Gandaki provinces, with a better income, are able to afford more and thus end up migrating to developed countries for better income. Young people who fall between these two categories, usually go to the Middle East and Southeast Asia. Madhesh and Koshi provinces have the highest proportion of such youth, followed by Gandaki and Lumbini.



Figure 11.3: Migrants to different destinations by province

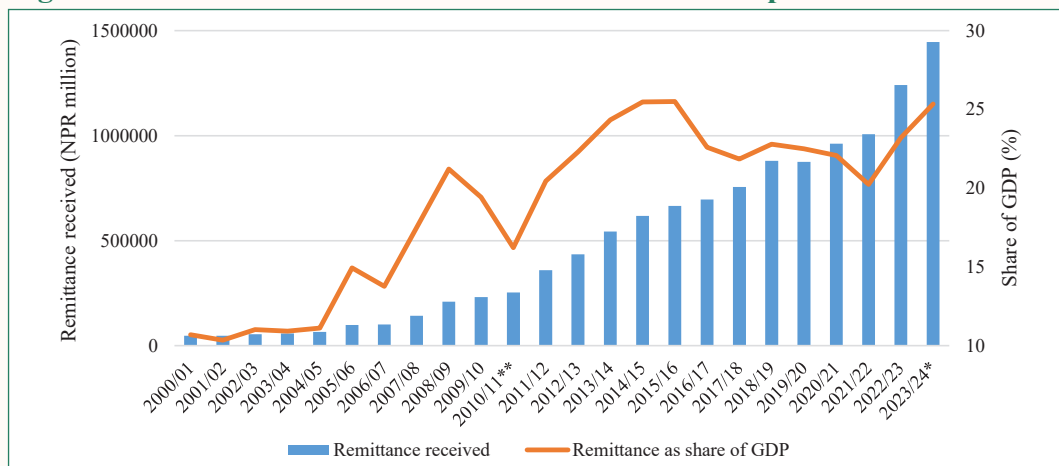


Source: NSO (2023)

Remittances

With the increasing number of migrants, there has been a rapid increase in the remittance inflow to the country, growing from about NPR 10 billion in 2000 to almost 1.5 trillion in 2024 (Figure 11.4). During this period, incoming remittances as a share of national GDP has increased from less than 2 percent to almost 26 percent in 2025.

Figure 11.4: Trend of annual remittances received in Nepal since 2000

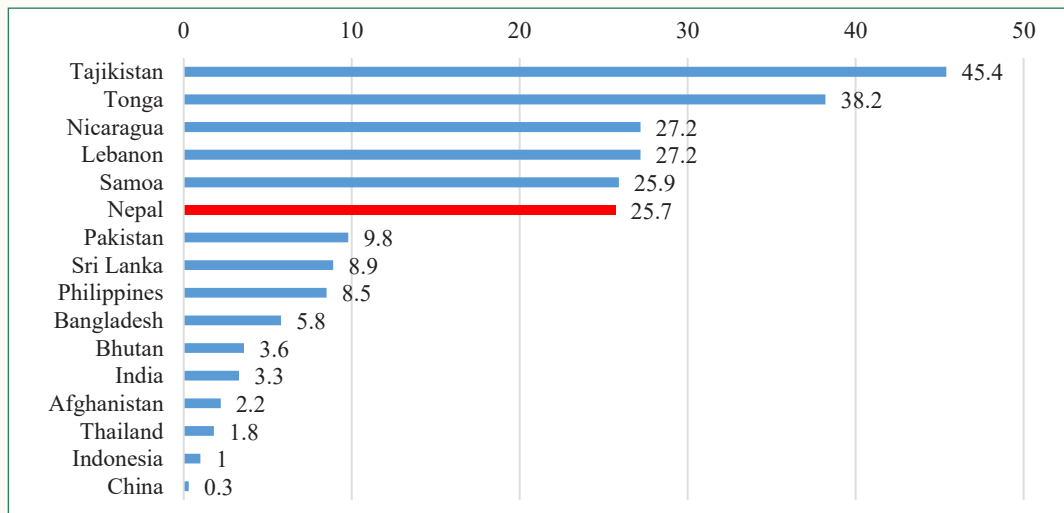


Source: NRB (2025)



As per data from the World Bank, Nepal has been one of the top six countries globally with the highest dependence on remittances as a share of national GDP (Figure 11.5). Only Tajikistan (45.4%), Tonga (38.2%), Nicaragua (27.2%), Lebanon (27.2%) and Samoa (25.9%) have a higher share of remittance than Nepal (25.7%). By comparison, all South Asian countries have this value less than 10 percent (India 3.3%), while China has only 0.3 percent.

Figure 11.5: Remittances as percentage of GDP in 2024



Source: World Bank (2024)

Even though remittances have helped in covering the huge trade deficit and in reducing poverty and malnutrition, high dependence on remittances is also a risk factor for economic sustainability. Nepal's economy is highly vulnerable to any global shocks that might affect labour demand which will in turn hurt the flow of remittances, as was the case during the COVID-19 pandemic.

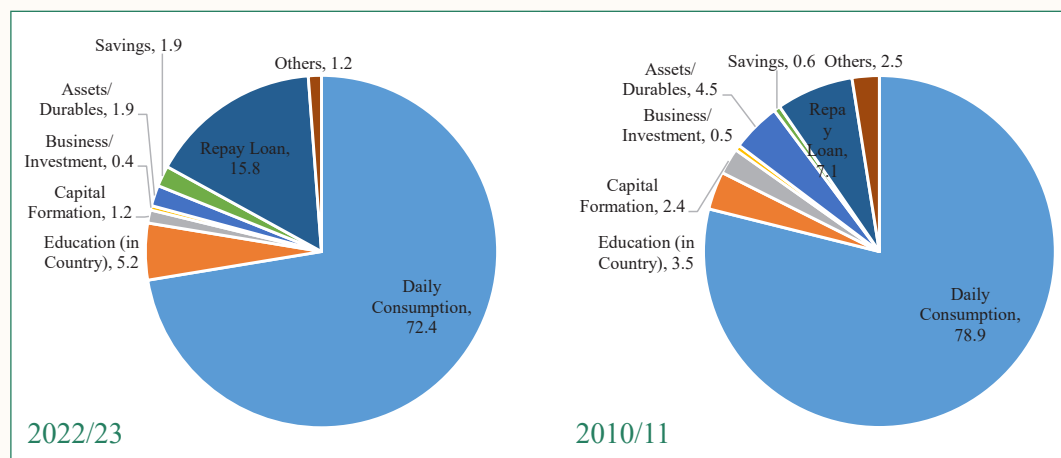
Uses of remittances

Most of the remittances has been used mainly for daily consumption, indicating that the improvement in food consumption is closely associated with the remittances. As much as 79 percent of the remittances was used for daily consumption in 2010/11, and this figure stands at 72 percent in 2022/23 based on the NLSS survey waves (Figure 11.6). It can be implied that remittances have been one of the factors contributing to the improvement in food security. Households' investment in the education of children and food acquisition has improved. However, remittances have not been invested in creating employment and



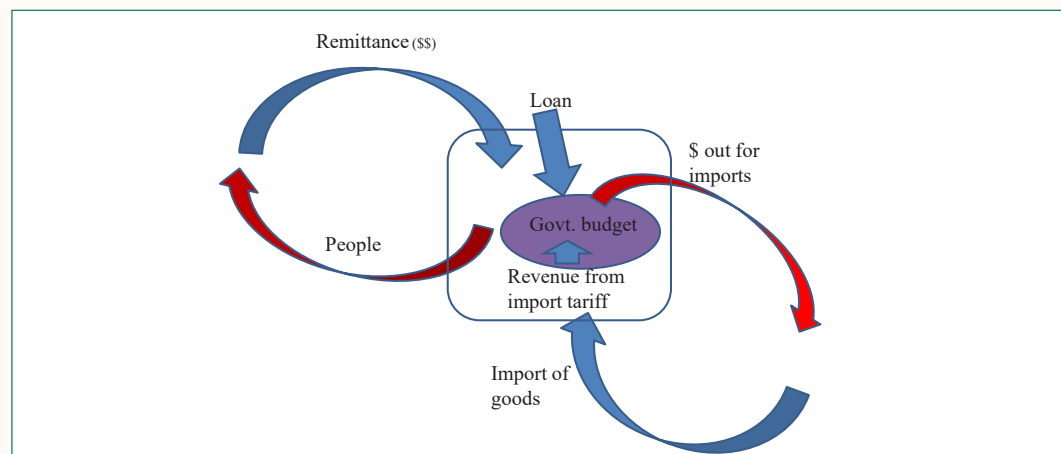
income generating activities within the country. In a way, external income in the form of remittances has not been integrated with internal economic growth engines like industries and agriculture. With an increase in consumption and stagnation, or rather decline, in domestic production, there has been a surge in imports of goods and services. Remittances have basically helped in paying for these ballooning imports, as depicted in the model shown in Figure 11.6.

Figure 11.6: Use of remittances by households in 2022/23 and in 2010/11



Source: Based on analysis NLSS IV and III data

Figure 11.7: A framework showing the linkage of remittances to Nepal's economic system



Source: Model developed by the authors



Due to the lack of employment opportunities within the country, out-migration for work has been a major livelihood strategy for the young population. For instance, in 2022 and 2023, more than 90 percent of this new labour force got employed in foreign countries (Acharya, 2024). This has helped in relieving the pressure for employment within the country, but, at the same time, there is also a labour shortage in the country. This labour shortage has hampered both the agriculture and industrial sectors in the country.

Prospects for employment within the country

Nepal does have the potential for creating employment opportunities within the country. Even though the Government has implemented programmes like the Prime Minister Employment Programme¹⁰ (*Pradhanmantri Rojgar Karyakram*) or the establishment of various Special Economic Zones, they have been largely ineffective in addressing contemporary needs. With the right policy environment, good governance and the involvement of the private sector, there is ample scope for supporting livelihoods for the working population within the country. Some sectors with such a scope are as follows.

Tourism: The sector currently employs about one million people, with annual recorded tourist arrivals of 1.1 million in 2024. By comparison, Thailand, receives about 40 million tourists annually. It is well known that with the country's immense potential of natural and cultural attractions, there is significant scope for increasing employment by facilitating growth in tourism in both quantity as well as quality.

Agribusiness: Evidence from various countries indicates that promoting agribusiness and small and medium enterprises is instrumental in transforming rural economies and also generating livelihoods with better incomes. Nepal's beautiful landscape, along with niche agricultural products, provides opportunities for agro-tourism that links agricultural production and/or processing with tourism to attract visitors to a farm or other agricultural businesses for recreation or education to generate additional income.

Industry: Nepal's manufacturing sector's performance has been very poor and has been in decline in recent decades. There is a scope to enhance this significantly to boost the economy as well as create jobs.

Infrastructure projects: Nepal needs to scale up its work in improving physical infrastructure such as irrigation, hydropower, roads and railways. With a better development governance, this would help boost the economy as well as provide employment to the population.

10. Recently renamed as the National Employment Programme



Information and communication technology: Currently, it is estimated that the ICT sector contributes to about 1.5 percent of the national GDP, and with the increasing number of educated workforce, there is scope for significant growth of the ICT sector, contributing to the economy as well as the employment of the educated.

Forestry and non-timber forest products: With 45 percent of the land mass covered with forest, there is a scope for increasing incomes through a more scientific forest management system, and immense potential for generating incomes and livelihoods with more systematic harvesting of unique non-timber forest products and herbs in Nepal and enhancing their value chains.

Climate, Disaster and Food Security

Summary

- Nepal is one of the countries most vulnerable to climate change and prone to disasters. Since 2017/18, there were reported deaths of 400 to 800 persons annually due to disasters that also caused large scale damage to property and infrastructure. In addition to floods and landslides, Nepal is also prone to earthquakes, the most devastating of which occurred most recently in 2015, forest fires and avalanches.
- Extreme weather events have been occurring more frequently, with most recent event being the floods of September-October 2024 and the floods and landslides of October 2025.
- Climate change impacts all aspects of food security including availability, access and utilisation. Proper investment is needed in the preparedness and anticipatory actions to enhance resilience.

Climate change is now widely recognised as one of the greatest challenges to humanity. The Earth hit a grim milestone in 2024: the planet not only had its warmest January on record, but also, for the first time, its average temperature over 12 consecutive months was more than 1.5 degrees Celsius higher than the preindustrial times. Climate change is affecting lives and livelihoods all across the world (NRDC, 2024). However, there are some countries or populations which are more vulnerable to the impacts of climate change, due to variation in the severity of climate shocks and their coping capacity.

Nepal is one of the countries most vulnerable to climate change, ranked 10th in the world as a country most affected by past climate hazards, according to the Climate Risk Index (Ekstein et al., 2021)¹¹. The climate vulnerability in Nepal is due to an interplay of climatic factors, unique geography, weak capacity in terms of institutions and policies and the existing development practices. The impacts of climate shocks have been very profound in Nepal across multiple sectors. The Himalayas, also known as the ‘third pole’ and the source of perennial water for about two billion people in South Asia, are getting increasing attention in recent years, due to visible climate change impacts.

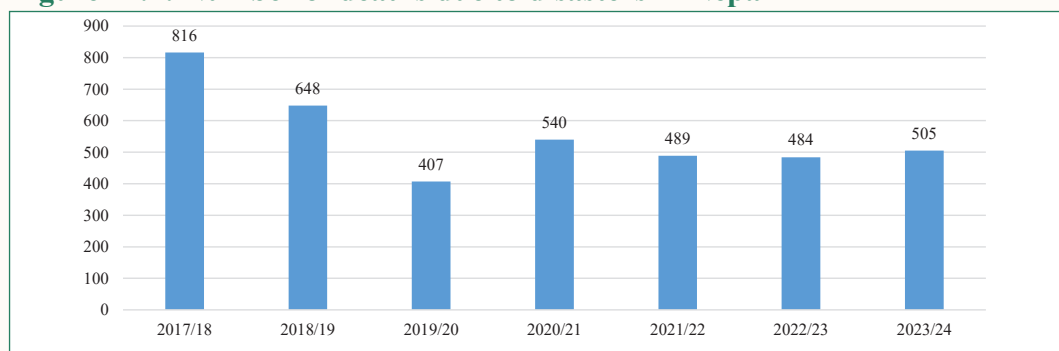
Extreme climate events are now the new normal in Nepal, with incidences of floods, landslides, avalanches, dry spell and forest fires occurring with increasing intensity and

11. Their most recent rankings of 2024 have significantly reduced Nepal’s risk assessment, and the country now ranks in the 60s.



frequency, adversely affecting millions of households. Figure 12.1 shows the number of people who have died due to natural disasters in the last seven years until 2023/24.

Figure 12.1: Number of deaths due to disasters in Nepal



Source: NDRRMA (2025)

Box 12.1: September-October 2024 floods in Nepal

There is growing evidence of more frequent and intense extreme climate events occurring in Nepal and across the world. The heavy rainfall from 26 to 28 September 2024, resulting in extreme floods and landslides across the country, is a stark reminder of what the future holds in terms of climate-induced disasters. On 3 October 2024, the National Disaster Risk Reduction and Management Authority (NDRRMA) reported that this resulted in the deaths of 236 persons including 32 children, and loss and damage to 11 hydropower projects affecting 20 percent of the national capacity with a loss of NPR 3 billion, six irrigation projects with a loss of NPR 1.35 billion, blocking 24 sections in 10 highways, 44 suspension bridges with a loss of NPR 1.04 billion, 96 schools and 66 health facilities. There were also loss and damage to 88,876 Ha of paddy field with a loss of NPR 3.5 billion, 458 Ha of fishponds with a loss of NPR 1.13 billion, 47,665 Ha of fruits and vegetable farms, 85 Ha of sugarcane fields, 1,300 ha of cardamom fields and loss of 26,205 livestock. Economists estimated a cumulative loss of about NPR 17 billion as a result of that event.

The observed 1-day rainfall during the 26 -28 September 2024 in 25 stations across 14 districts in and near the Kathmandu Valley exceeded all past records. The future climate change is expected to further exacerbate the extreme weather events and their associated loss and damage. An NDRI study revealed that rainfall intensity, such as the annual maximum 1-day rainfall (RX1day), is projected to increase by up to 72 percent in the mid-future (2035-2065). The historical 100-year return period flood discharge is likely to increase up to 72 percent (37 percent median) in the future and will correspond to a 25-year return period future flood.

Climate change impacts all pillars of food security including food availability, access, utilisation and stability, which has clearly been felt in Nepal.



Availability: With only about half of the agricultural land covered by irrigation, Nepal's agricultural production is highly dependent on rainfall. Looking at the production trends of Nepal, it is clear that annual production varies with the rainfall. Years with good monsoon perform better than those with poor rains. With increasing uncertainty in rainfall patterns in terms of timing, duration and intensity, Nepal's agriculture is highly vulnerable to climate. Studies suggest that there are certain crops which are more vulnerable to rainfall variability. For example, the correlation of rainfall variability with rice has been found to be very significant, while that for maize and millet is less significant (WFP Nepal, 2011; WFP et al., 2016). Food availability in the markets may also be reduced during disaster due to disruptions in supplies and market access.

Access: The physical access to markets may be limited due to damage to roads as a result of disasters such as floods or landslides. It has been a very common occurrence to see the roads being washed away, bridges collapsing and the highways being blocked by debris in various parts of the country during the monsoon. Furthermore, households may also face challenges in economic access due to loss of livelihoods following disasters.

Utilisation: Disasters can adversely impact the water and sanitary situation, and there is an increased likelihood of diseases like diarrhoea and cholera spreading in the aftermath of disaster. With the increasing impact of climate change, the prevalence of diseases such as dengue and malaria has increased in recent years. All these will have adverse impacts on food security and nutrition situation.

Stability: The increasing shocks caused by climate extremes disrupt food security, making populations increasingly vulnerable. Even areas previously considered relatively safe are increasingly vulnerable to these extreme weather events. The recent urban floods in Kathmandu Valley is an example of this (Box 12.1).

Dealing with the Climate Impact

According to a report by IFRC (2019), if no urgent action is taken now and business continues as usual without any response to extreme weather events, the number of people in need of humanitarian assistance annually due to the climate crisis could double by 2050, and the financial costs could also balloon to USD 20 billion per year, globally. The report also shows that, if appropriate climate adaptation measures are taken now, these figures could stabilise, and even drop. Nepal is no exception; it should be a high priority to invest in climate adaptation and disaster risk reduction measures. The following are some key approaches which can help enhance the resilience of households and communities in meeting the climate challenges.



Climate adaptive agriculture: This includes use of varieties resistant to climate extremes, promoting local climate-resistant crops, climate adaptive farming practices and expansion of irrigation facilities.

Insurance: Provide crop and livestock insurance to cover for losses due to climate shocks.

Climate resilient infrastructure: Physical infrastructure, particularly roads, must be designed to accommodate climate uncertainties. Strategic food reserves should be established in suitable locations. Additionally, infrastructure such as humanitarian staging areas should be in place to address the situation in case of a disaster.

Early warning system and anticipatory action: Effective systems for providing early warning information to the communities and other stakeholders can help in timely response in case of disaster. Also, there is an increasing realisation that instead of waiting for the disaster to strike, some anticipatory action and planning based on vulnerability mapping can significantly reduce loss and damages.

Social protection: While social protection schemes for the vulnerable populations is an important means of food and nutrition security in general, they become especially useful in the aftermath of a disaster. In order to deal with the climate shocks and other disasters, a shock-responsive social protection system will be an effective way to address the households' needs related to food and other livelihood aspects.

International climate finance mechanism: Nepal, one of the most vulnerable countries affected by climate change, primarily caused by the activities of developed countries, has a strong case for international climate finance support. Therefore, it should intensify its efforts in this regard.

Earthquake

In addition to the climate-induced disasters, it is well known that Nepal is highly vulnerable to earthquakes. The devastating earthquake of 2015, which killed over 9,000 people, and the earthquake of 2023 in Jajarkot causing the death of 180 people are recent examples of this. Even though there has been some increase in awareness on preventive measures, such as the construction of new buildings with earthquake-resistant designs, much needs to be done to ensure better preparedness, considering the likelihood of mega earthquakes in Nepal.

Epidemics

The COVID-19 pandemic had a devastating effect on lives and livelihoods all across the world, and Nepal, being a low income, developing country, was particularly hit hard. Thus, there is a need to be better prepared to cope with any such or other pandemic in the future, with better health facilities and response mechanisms.



13

Education and Health

Summary

- Empirical evidence suggests that there is a positive correlation between the mother's education and nutrition status. The prevalence of stunting in children of educated mothers is significantly lower, while households with educated parents report less instances of food insecurity.
- Improvements in health facilities in the past decades have contributed to an increase in life expectancy as well as food security and nutritional outcomes. However, much remains to be done to provide quality health services to all.
- The school meals programme can be an important entry point for improving food security and nutrition. Now is also the time to prioritize food quality through awareness, education and monitoring of food that goes to the consumers.

Education and health have important implications on food security and nutrition.

Education

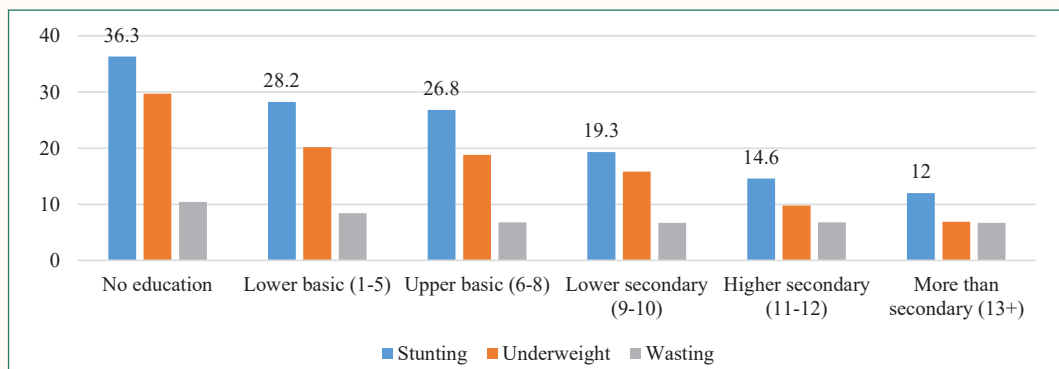
Nepal has made significant progress in basic education in recent decades, with the national literacy rate now at 76.2 percent as per the 2021 census, though it means there are still 24 percent who are illiterate. Progress in basic education in terms of higher literacy rates, particularly in women's education, has contributed to improved food security and nutrition. Children in households with educated parents, particularly if the mother is educated, are likely to get better care in terms of food intake, hygiene and other necessities, which in turn is reflected in better food security and nutrition outcomes. This is also shown by findings in Nepal.

A nationwide survey by WFP (2024) revealed that among the households where the household head was illiterate, 25.4 percent of them reported having inadequate food consumption in terms of food consumption score, while this proportion was 8.9 percent in households headed by a person with education above secondary level.

The 2022 NDHS also shows positive correlation between the mother's education and the nutrition status of children (Figure 13.1).



Figure 13.1: Malnutrition of children under five years by mother's education



Source: NDHS (2022)

The education sector faces immense challenges in meeting the needs of the time. Even though school enrolment rate at the primary school is close to universal, there is a high dropout rate. Only about one third of those who enrol in grade 1 continue to reach grade 12 according to the data from the Ministry of Science, Technology and Education. The quality of public education is also of great concern in Nepal. Given the significant disparity in the quality of education provided in public and private schools, over 100,000 students have embarked on overseas higher education journeys annually, driven by the pursuit of better education opportunities and the prospect of more lucrative employment prospects.

School meals programme as an entry point for improving food security and nutrition

It has been well established from countries across the world that school meals programmes have been effective ways to improve children's nutrition and health and to meet education goals by encouraging children's school attendance and learning. These programmes also have the potential to play a significant role in transforming food systems, as evidenced by the findings that these programmes have reached over 400 million children worldwide in at least 148 countries (GCNF, 2024).

A national school meals programme has also been implemented in Nepal over the last few decades. All children going to primary and pre-primary public schools are entitled to benefit from this. Some 4.8 million children (1.2 million in pre-school and 3.6 million in primary school) benefited from this scheme in Nepal in 2022-23 (GCNF, 2024). However, there is significant room for improvement. The current scheme with allocation of NPR 15 per child for this purpose to the school is inadequate for a proper school meal, and in many cases, it has been found that this is used for buying and providing ready-made, packaged and junk food



instead of serving a nutritious meal. It is highly recommended to adopt a homegrown school meals programme, whereby children receive nutritious food grown by the local farmers, which in turn promotes local production and income. Even though it demands more resources, there is evidence globally that such a homegrown school meals programme has significant multiplier benefits not only for the nutrition of the children but also for the local community.

Health

Nepal has made remarkable progress in health indicators over the last few decades. Average life expectancy of Nepalis has increased from 58 years in 1990 to 71.3 years in 2021 (NSO, 2024). Maternal mortality rate has decreased from 539 per 100,000 live births in 1996 to 151 in 2022. Infant mortality rate, which remained constant at 33 per 1,000 between 2006 and 2011, has decreased to 21 in 2022.

This progress can be attributed to several factors, including, a) improving access to health services due to availability of more health facilities and easier physical access due to the expansion of road network and services for community health workers, b) more vaccination coverage, c) increasing practice of maternal deliveries at health centres, d) improved hygiene and sanitation practices, as shown by the fact that 95.5 percent of all households use toilet facilities in 2021, compared to 61.8 percent in 2011 according to the 2021 census and e) improved food consumption and care practices.

The Government initiated a health insurance programme in 2016 to ensure that all citizens, including the general public, have access to healthcare services. As part of the programme, treatments are either subsidised or provided for free, depending on the disease (e.g., treatment for cancer and kidney failure). As per the recent figures from the Health Insurance Board of the Government, some nine million people have enrolled in this insurance programme. Despite the promising uptake, there have been challenges in its implementation, as many of those initially enrolled have not renewed their insurance and only 5.8 million (or 20 percent of the population) are under active insurance schemes as of March 2025.

While Nepal has made significant progress in dealing with basic health challenges such as diarrhoea, malaria and the like, which were major causes of death a few decades before, now the challenges have shifted towards the increasing burden of non-communicable diseases (NCD) such as cardiovascular disease and cancer. For example, out of a total of 193,331 deaths estimated in Nepal in 2019, 71.1 percent were due to NCDs, 21.1 percent were due to communicable, maternal, neonatal and nutritional (CMNN) diseases and the remaining 7.8 percent due to injuries (NHRC, 2021). With the current trends in food consumption patterns and the growing prevalence of overweight and obese individuals, the situation is likely to deteriorate further, with increasing health and economic costs.



The Constitution of Nepal has established basic health care as a fundamental right of its citizens. The Government has formulated a national health policy in 2019, which was followed by a national health sector strategy for 2023-30. The strategic plan includes a) universal access to health care and social security, b) health system in coordination among the federal, provincial and local level, c) health in all policies, d) multisectoral mechanism, e) good governance and increased investment in health and f) professional and ethical behaviour.

Successive overnments have been taking various measures in improving the health services in the country. Particularly, the COVID-19 pandemic served as a wakeup call for many to realise the importance of having a well-functioning health infrastructure. Among the measures taken up by the Government are the provision of designated hospitals at the national, provincial and district levels, the decision to set up primary health care hospitals in each municipality and health posts in each ward, though the progress on this front has been rather slow.

From Food Quantity to Food Quality

As discussed in Chapter 4, there has been a marked improvement in the food consumption of Nepali households in the past few decades. They have been consuming more calories and their dietary diversity has improved with consumption of more protein and vitamins in addition to calories. However, there are other types of emerging health risks associated with such food consumption. Unregulated use of chemicals, particularly pesticides during production, adulteration of food items sold in the markets and inadequate measures for ensuring standards for imported and locally supplied food items before they reach the general consumers have been some of the major issues, with likely implications on health of the populations. Thus, there is a need to prioritise ensuring the quality of the food that is consumed. The Government of Nepal has enacted the Food Hygiene and Quality Act, 2081 (2024). The Act stipulates key provisions, procedures and compliance requirements related to the supply and sale of food items, including import and export of food. A monitoring mechanism is also proposed. This is a welcome development, though it is yet to be seen whether the Government will be able to implement this effectively.

In addition to the enforcement of the Government's legal provisions, it is important to raise the general awareness on safe, hygienic and healthy food habits. In recent years, there has been a massive increase in the consumption of processed 'junk' food, particularly among the younger populations. Moreover, with the increasing trend of eating outside of home, there is a need to raise general awareness among the population on safe and healthy food habit and to ensure acceptable food quality is served to the consumers.



14

Social Protection

Summary

- About a third of the population in Nepal is covered by some form of social protection under more than 80 schemes. This has been one of the factors contributing to food security and nutritional wellbeing.
- At 2.1 percent of GDP, Nepal has the highest allocation of social protection in South Asia.
- The increasing cost of social protection, almost equaling the total development expenditure, has posed questions on the Government's capacity to sustain it, and thus a move towards a smarter and more efficient, needs-based targeted approach is necessary.

Evidence from around the world indicates that social protection is an important instrument to fight hunger and poverty (Rachel et al., 2014; World Bank, 2022; OECD, 2024). Social protection plays an important role in food security, particularly for vulnerable populations. This is particularly true in a developing country like Nepal. Social protection is a fundamental right recognised in the Constitution of Nepal (Article 43) and a priority for the Government.

While there were various measures related to social protection implemented by the governments in the past, the senior citizen allowance in 1994 by the Prime Minister Manmohan Adhikari is considered by many as the pioneering step in recent history, which started with a modest provision of NPR one hundred per person per month.

Social Protection Coverage in Nepal

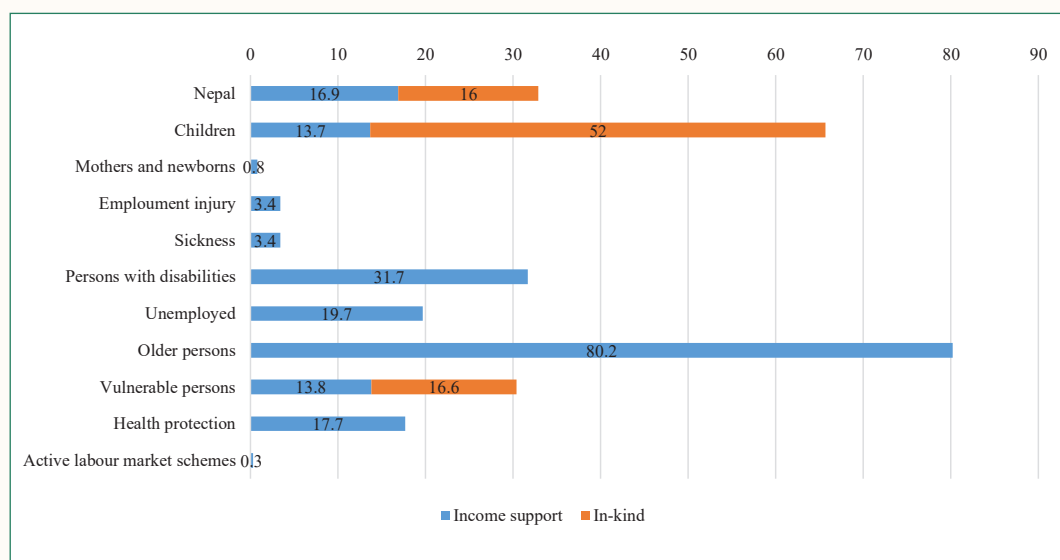
In recent decades, the social protection schemes have expanded significantly in Nepal, with approximately 30 existing programmes implementing 76 schemes¹² across different ministries as of 2023 (ILO, 2023), and about a third (32.9%) of the population have been covered by some social protection scheme in the fiscal year 2020/21. Among the different groups, old persons (80 percent of those aged 60 and above covered) and children (65 percent covered with either child grants or school meals programme) and people with disabilities (32%) have the widest coverage, while it also covers groups such as vulnerable persons and the unemployed (Figure 14.1).

12. There are now 87 schemes as of May 2025.



Despite the progress, about two-thirds of the population in Nepal remains without social protection; the coverage in Nepal is lower than the global average of 50 percent (ILO, 2024).

Figure 14.1: Population covered by at least one social protection scheme



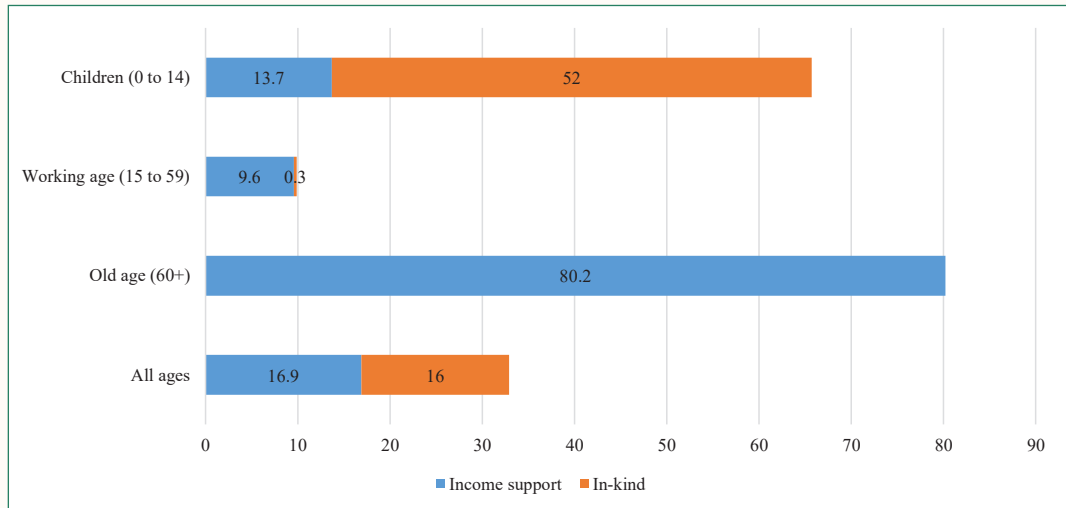
Source: ILO (2023)

Social protection: A life cycle approach

In order to have an effective impact on the overall well-being of society, it is important to address social protection from a life cycle approach – that is, to provide a safety net covering the vulnerable populations of every age group. In Nepal, some eighty percent of old-aged people (60+ years) have been covered by social protection schemes (through income support), and almost two-thirds of the children aged 0-14 years have benefited from social protection (52 percent receiving in-kind support and about 14 percent receiving income support). This proportion is much lower for working-age (15 to 59 years) people, at only 9.9 percent (Figure 14.2), indicating that a big proportion of working-age people, particularly those in the informal sector or those self-employed are not part of the social security schemes.



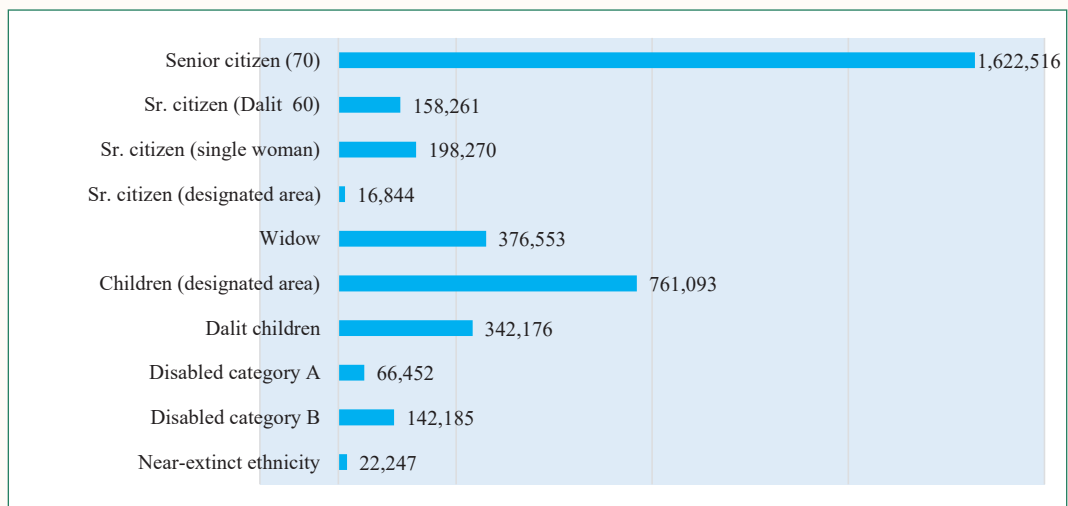
Figure 14.2: Percentage of population receiving at least one social protection benefit by age group



Source: ILO (2023)

In 2023/24, a total of 3.7 million people in Nepal received social security allowances from the Government. The number has been increasing annually, with the figure at 2.2 million in 2013/14.

Figure 14.3: Number of persons receiving social security allowances in 2023/24



Source: MoF (2024)



Box 14.1: Major social protection schemes in Nepal

The following are some of the main social protection schemes in Nepal, which contribute to food and nutrition security by enhancing economic access.

Old age allowance: Senior citizens aged 70 and above (60 and above in case of Dalits) are covered by a monthly allowance.

Children (0-14 years): School-aged children until grade 5 benefit from the school meals programme. Such a school meals programme, combined with nutrition awareness activities, can play a significant role in enhancing food and nutrition security. Additionally, all children until the age of five receive a cash transfer in some districts. This initiative was initially launched in five districts and now covers 25, with plans to expand its reach further.

Social security based on contributions: First announced in 2018, this scheme requires the employees and employers to contribute to this fund, aimed at providing several benefits to the employees, including old age benefits, medical benefits and compensation for disability. This was first started with the formal sector in Nepal and was later extended to cover migrant workers, and recently to cover informal employment as well as self-employment. As of February 2025, more than two million people have been registered in the contribution-based social security scheme (SSF, 2025).

People with disabilities: A monthly cash allowance is provided to people with disabilities. Those with profound disability (Category A) receive NPR 3,990, while those with severe disability (Category B) receive NPR 2,118 per month.

Other vulnerable persons: There is also a provision to provide cash allowance to other categories of vulnerable persons such as widows and those from near-extinct ethnicities.

Multiplier effect of investment in social protection

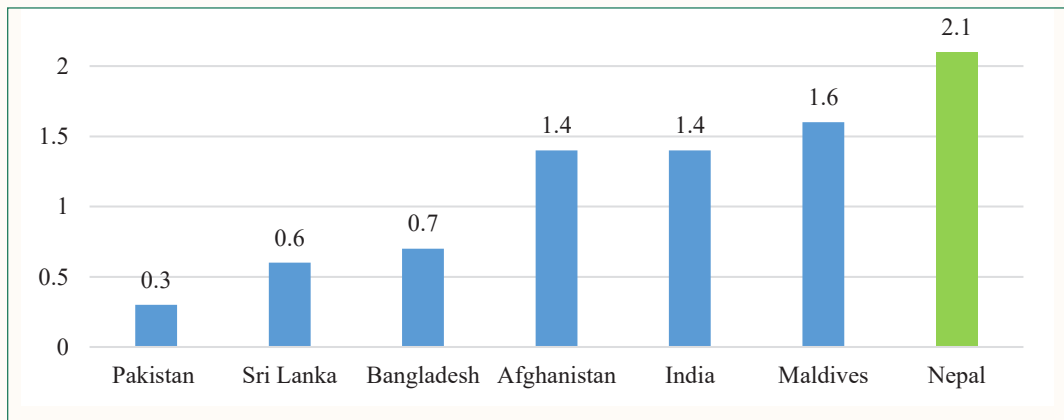
Studies have shown that investment in social protection has a positive impact on the overall economy and social wellbeing (including food security), in part due to an investment multiplier effect. For instance, a study indicated that the economic returns from social protection investment in Nepal are substantial, as suggested by the estimated fiscal multipliers. An increase of NPR 1 in social protection expenditures leads to a GDP increase of NPR 2.56 and this impact is materialised within a year and a half (ILO, 2023b).

Among the South Asian countries, Nepal has the highest share of GDP spent on social assistance (Figure 14.4), which is likely to have contributed to the improvement in food



security and nutrition in the country, and thus will have a positive impact on the longer-term development of the country.

Figure 14.4: Social assistance expenditure as percentage of GDP in South Asian countries



Source: World Bank (2024)

Looking ahead: Sustaining the social protection

While studies indicate an overall positive impact of social protection, and thus the need to expand it further, increasing budgetary requirements for this vis-a-vis the development budget has been a challenging issue in Nepal. The total annual budget allocated by the Government for providing social security allowances has increased ten-fold from NPR 11 billion in 2013/14 to NPR 110 billion in 2023/24 (MoF, 2024). When considering the total expenditure of social protection programmes, the figure is even higher than the total amount spent on capital expenditure. To put this into perspective, in the 2023/24 fiscal year, the total budget for social protection was NPR 258 billion, about 15 percent of the total budget. On the other hand, the total capital expenditure was estimated at 254 billion (against an allocation of 302 billion). Thus, sustaining and further expanding social protection now seems challenging in the face of growing fiscal deficit and lack of adequate internal revenue sources.

Moreover, there is evidence that there is considerable duplication in social security benefits from the current basket of more than 80 social protection schemes, and thus there is a need to revisit the policy and move towards a more coordinated and needs-based, efficient and smarter approach to maximise the desired outcome from the available resources.



Section D

Governance, Policy Issues and the Way Forward

This section explores the impact of governance on food security in Nepal, examines how food self-sufficiency intersects with both national security and overall food security. It also reviews the current policy environment surrounding food security. Following this, the section highlights the importance of evidence-based policymaking, assesses Nepal's progress toward achieving Zero Hunger, and offers recommendations for future action.







15

Governance and Food Security

Summary

- As per the World Bank's six Worldwide Governance Indicators (WGI), Nepal has a poor status in all six development indicators compared to the global average.
- As per Transparency International's Corruption Perception Index (CPI), Nepal remains in the category of countries with rampant corruption, ranking 107 out of 180 countries with a score of 34.
- Poor governance has affected all development efforts, including programmes aimed at improving the country's food security and nutritional well-being.

Good governance is one of the important requirements for the progress of a nation. This is particularly true for a developing country like Nepal. The poor state of overall governance and accountability in Nepal has impacted all sectors including livelihoods and food security.

As per the Worldwide Governance Indicators (WGI), by the World Bank (World Bank, 2024), Nepal has a poor status in all six development indicators compared to the global average.¹³ Nepal's very poor government effectiveness is reflected in the percentile rank of 21.7¹⁴ compared to 67.9 for India, 73.6 for China, 26.9 for Bangladesh, 30.7 for Pakistan and 100.0 for Singapore. Similarly, Nepal ranks below India and China, in the rule of law, control of corruption and regulatory quality. Nepal fares better than both its neighbours only in political stability and absence of violence/terrorism and is better than China in voice and accountability.

The lack of good governance is often reflected in the prevalence of corruption. As per the Corruption Perception Index by the Transparency International, Nepal remains in the category of countries with rampant corruption, ranking 107th out of 180 countries with a score of 34.¹⁵ As can be seen from Figure 15.1, Nepal's situation has been consistently worse than neighbouring China, India and Sri Lanka.¹⁶ Such a high level of corruption has adversely impacted development activities across all sectors, including food security.

13. The six WGIs measure a country's voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption.

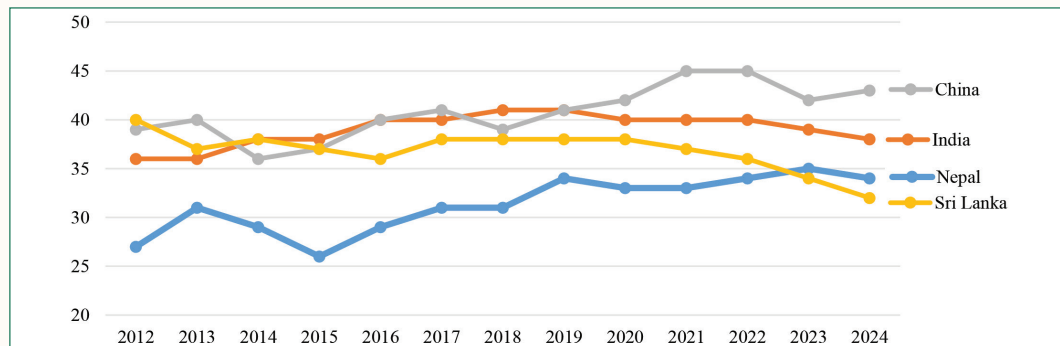
14. Percentile rank indicates rank of country among all countries in the world. 0 corresponds to the lowest rank and 100 corresponds to the highest.

15. CPI is presented on a scale of 0 to 100, with lower scores indicating higher levels of corruption

16. Sri Lanka has experienced a rise in the CPI in recent years, coinciding with the country's financial and political crisis.



Figure 15.1: Corruption perception index in Nepal and a few other countries

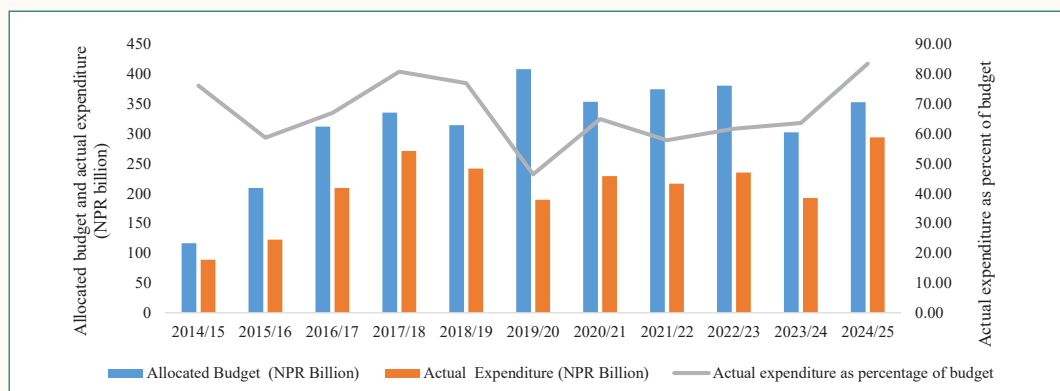


Source: Transparency International (n.d.)

One important aspect in which the extent of corruption is reflected in practices is the wide mismatch between the targets in the Government's various annual and periodic plans and their actual achievements.

For example, annual data from more than a decade shows that out of the allocation of annual budget, actual expenditure is only around 80 percent (NDRI, 2023 & 2024), and this proportion is even lower for the capital or development expenditure. Looking at the trends of last ten years, the share of actual expenditure to the allocated budget for capital expenditure has been in the range of 58 to 83 percent, except in 2019/20 (46%) - the fiscal year when there was exceptionally adverse impact of COVID-19 (Figure 15.2).

Figure 15.2: Budget allocation for capital expenditure, actual expenditure and expenditure as the percentage of allocated budget



Source: Analysis based on data from budget speeches of various fiscal years

Box 15.1: Governance and development projects

The poor state of development governance in Nepal has affected all sectors and is reflected in the poor implementation of projects. Realising the need to speed up the implementation, the Government in 2011/12 designated projects of strategic importance for the economic and social development of the country as ‘national pride projects’. As of now, there are 27 projects (transport-6, irrigation-7, airports-3, water supply-1, and others-6) listed as ‘national pride’ projects, though the progress on each thus far has been very slow.

Projects which have an impact on food security and nutrition are no exception to this poor saga. For example, there are several irrigation projects which have not been completed even though they have been planned for or been under construction for several decades. The followings are a few examples of such projects¹⁷, which, if completed, would significantly boost agricultural production in the country.

Sikta irrigation project has been under construction for the last several decades. The project cost has now escalated to NPR 52 billion, against NPR 12 billion of the original estimate when it started in 2007. Only 40 percent progress is reported 17 years later, even though the plan was to complete it in seven years. It is expected to provide irrigation facilities to a total of 42,766 Ha (33,766 Ha on the western side and 9,000 Ha on the eastern side of the Rapti River in Lumbini Province).

Babai irrigation project, spanning 36,000 Ha in Bardiya district of Lumbini Province, started in 1990 and has been implemented across various phases. The latest plan is to complete it by the end of 2025/26.

Bheri Babai diversion project to cover Surkhet and Bardiya districts in Lumbini Province started in 2014/15, but only about 66 percent of progress has been made so far. The initial estimate for the project was NPR 16.43 billion, but expenditures have already reached NPR 16.58 billion. The revised estimate now stands at NPR 33.66 billion and may increase further. In the year 2024/25, only NPR 1.8 billion was allocated for the project. The project aims to provide irrigation facilities for 51,000 Ha of land in Banke and Bardiya districts, generate 46.8 megawatts of electricity and supply drinking water to Kohalpur.

Rani Jamariya Kulariya irrigation project in Kailali district of Sudurpaschim Province started in 2010/11 with an aim to provide irrigation facilities to 38,300 Ha of agricultural land. The plan was to complete irrigation for 20,300 Ha by FY 2023/24.

Sunkoshi Marin diversion multipurpose project, declared as a national pride project in January 2020, is an inter-basin transfer project that transfers water from the Sunkoshi River to the Marin Khola, a tributary of the Bagmati River flowing through Bagmati Province. The flow will be discharged to the Bagmati Irrigation System to irrigate an additional 122,000 Ha of land in Rautahat, Dhanusha, Mahottari, Sarlahi and Bara districts of Madhesh Province. This is planned to be completed by 2028/29, but given the pace of work so far (35 percent completed as of now) and the track record of other projects, it is unlikely to be completed in time.

17. Information compiled from project websites and the economic surveys of the Ministry of Finance



Similarly, the performance in the agricultural sector has not been encouraging. For instance, consecutive governments have been talking about setting up a fertiliser factory inside the country for more than two decades, but so far there has been no progress except for a few feasibility studies. While every year, the Government spends sizeable portions of its agriculture budget in importing fertiliser¹⁸ and providing it to farmers at subsidised rates, there have been complaints that the procurement is not made in time for the farmers during the planting season.

Initiatives such as the Prime Minister's Agriculture Modernization Project have also not achieved the desired success (Neupane et al., 2024). The Government has been announcing plans for making the country food self-sufficient in a few years, but this is a far cry so far in terms of actual achievement. There are budget constraints as well as concerns that the allocated budget has not been fully utilised.

As food security and nutrition involve work across multiple sectors, there is a need for coordinated effort from different line ministries. For example, the irrigation activities fall under the Ministry of Water Resources and Irrigation, market supplies fall under the Ministry of Industry, Commerce and Supplies and the oversight of agriculture and livestock falls under the Ministry of Agriculture and Livestock Development. Without effective coordination among the related line Ministries, it becomes very difficult to achieve the desired goals on food security and nutrition.

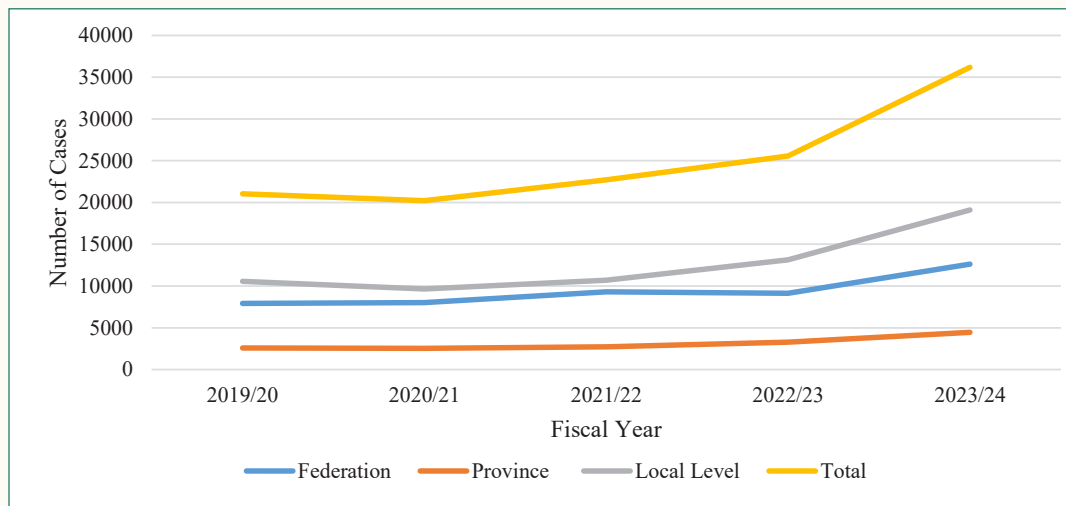
After the federal restructuring as per the Constitution of 2015, there are three tiers of Government (federal, provincial and municipal levels) functioning in Nepal. As a result, some positive effects have been observed, particularly with the local governments, as the locally elected representatives are directly in contact with the local people and have been instrumental in delivering basic services including social protection, disaster response and health services. On the downside, there has been confusion due to a lack of clarity on the jurisdiction, responsibilities and allocation of resources between the different tiers of government. Since district level offices of various line Ministries do not exist anymore, some gaps have been observed in terms of some services. For example, district agriculture offices do not exist, but their functions have not been fully taken up by the municipal governments. Even though there are some Agriculture Knowledge Centres within the district, the functions previously carried out by district agriculture offices, such as compiling the agriculture statistics, are not fully taken up within the new arrangement.

18. Data indicate that almost half of the annual budget of the Ministry of Agriculture and Livestock Development is spent on fertiliser subsidies.



The increasing number of corruption cases filed by the Commission for the Investigation of Abuse of Authority (CIAA) also indicates the proliferation of corruption practices at all tiers of government. The number of cases at the federal level increased from 7,917 in 2019/20 to 12,623 in 2023/24 (an increase of 59%), that at the provincial level from 2,571 to 3,293 (an increase of 73%), and at the local level from 10,560 to 19,106, a whopping 81 percent (Figure 15.3).

Figure 15.3 Number of corruption cases filed by CIAA since 2019/20



Source: CIAA (n.d.)

Poor governance in Nepal has hampered efforts to achieve food security. To ensure a stable food security situation for the population, Nepal must prioritise good governance, especially by eliminating various forms of corruption, speeding up policy implementation and undertaking appropriate infrastructure development projects to address the root causes of food insecurity.



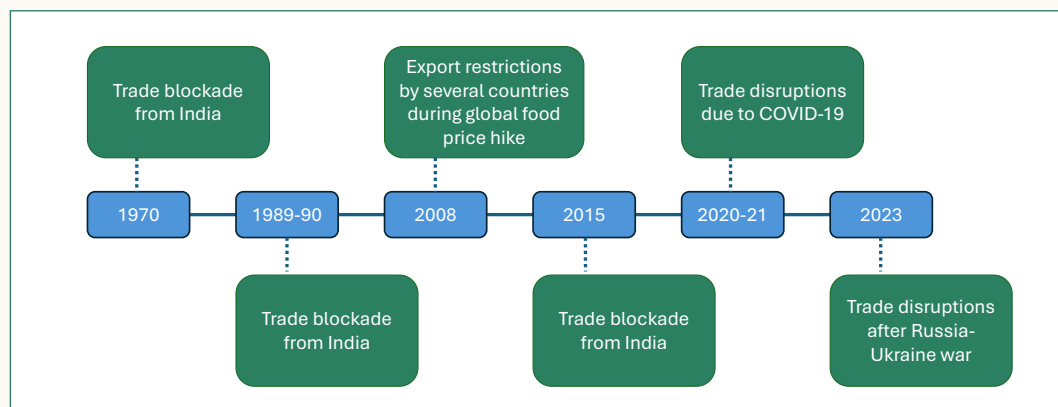
Food Self-Sufficiency, Food Security and National Security

Summary

- Food self-sufficiency is also a national security issue for a country like Nepal, which is vulnerable to external shocks as well as natural disasters.
- It is not a good sign that in recent years, Nepal has been increasingly dependent on imports even for staple food, and Nepal's cereal grain dependency ratio has been increasing.
- Nepal has the potential to be self-sufficient in food and attaining this should be a high priority.

Attaining food self-sufficiency is important for any country from a national security perspective, and it is more so for a landlocked country like Nepal. While in principle, a country may be food secure even without being self-sufficient in production, if the households have economic access to imported food, the country may be vulnerable, particularly during times of external shocks, such as trade restrictions, pandemics or big disasters. It is important for Nepal to be self-sufficient in meeting the basic food needs of its population through domestic production. Nepal has faced various challenging situations throughout its history, as evident from Figure 16.1, which presents a timeline of significant trade disruptions that have affected Nepal since 1970.

Figure 16.1: Timeline of major food supply shocks faced by Nepal due to trade disruptions

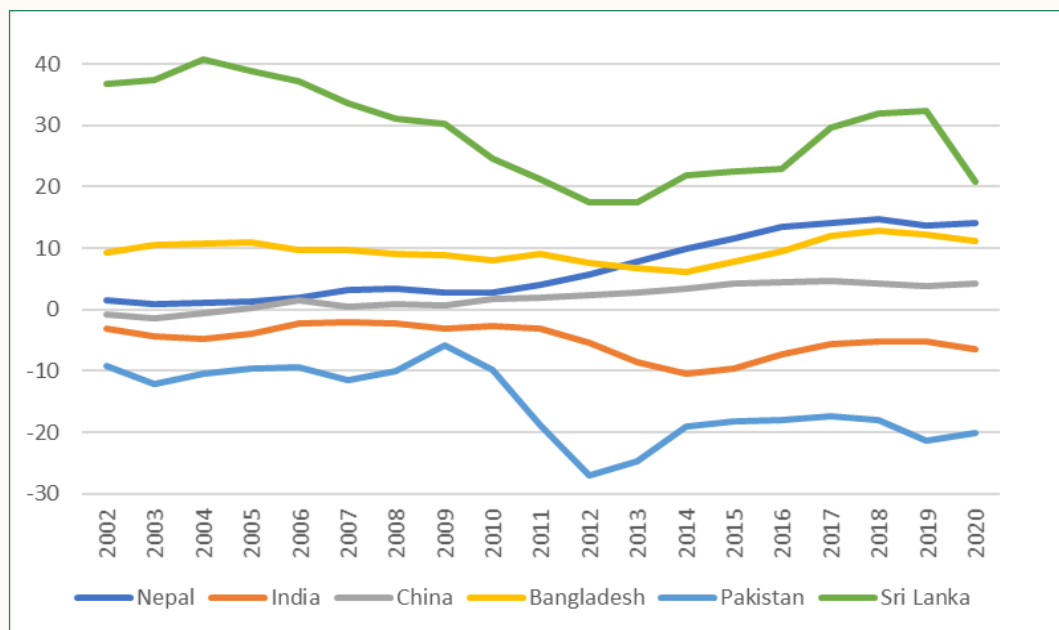




In addition to the vulnerability to external shocks, Nepal faces frequent natural disasters such as floods, droughts and landslides, which disrupt agricultural production and supply chains, leading to food shortages. Dependence on imported food exposes Nepal to risks in international trade relations and supply chain disruptions.

The recent trends of food production and trade deficit in Nepal have been of significant concern due to increasing dependence on food imports. It is ironic that Nepal, historically known as an agrarian country that used to export food, especially rice, needs to depend on 'imports' to feed its population, as evident from the statistics presented in Chapter 8 and 9. Nepal's cereal import dependency has increased from 2 percent in 2002 to about 15 percent in 2020, as per FAO data (Figure 16.2). While Pakistan and India have remained mostly net food-exporting countries during this period, China has been a marginally food-importing country, and Bangladesh has made significant improvements in reducing food import dependency.

Figure 16.2: Cereal import dependency ratio (three-year average) for Nepal and other countries



Source: FAO (2020)

Studies that looked at the situation of food-import-dependent countries during periods of crises lend support to the fact that such countries face a difficult geopolitical reality that hinders continuous import flows. During the 2008 financial crisis, food riots were common



in food-import-dependent countries like Haiti, Guinea, Egypt and Bangladesh. Nepal did not suffer much at that time given that it was largely self-sufficient in basic food needs then. However, when there was a trade blockade from India in 2015, there were serious consequences on Nepal. Such crisis periods are also times when geopolitical responses compromise the national sovereignty of the import-dependent countries (Adhikari et al., 2021).

Food self-sufficiency for Nepal, therefore, is not just an economic issue but rather a matter of national security. A country that can feed its population without external dependency is more resilient to geopolitical tensions, price hikes or supply chain disruptions. For Nepal to ensure national security, it must focus on strengthening its agricultural sector, improving governance and promoting sustainable practices that empower farmers to produce enough food to sustain the nation.



Photo credit: Basanta Acharya

Policy Landscape on Food Security and Nutrition

Summary

- Successive governments in Nepal have been taking various policy measures related to food security in Nepal, and since 2015, their policies have been aligned with the Sustainable Development Goals, particularly Goal 2 (Zero Hunger).
- The Constitution of Nepal stipulates the right to food as a basic human right and the enactment of the Right to Food and Food Sovereignty Act, 2018 is a significant milestone in internalising the commitment to eradicate hunger.
- Despite the policies and mechanisms in place at the federal level, challenges remain in terms of coordination and implementation at the provincial and local levels.

This chapter looks into the evolution of policies related to food security and nutrition, status of implementation at different tiers of government and the challenges.

The Policy Context

Successive governments in Nepal have, over the years, taken various policy measures related to improving food security in Nepal. In 2000, Nepal became a signatory to the Millennium Development Goals (MDGs) with Goal 1 aiming to eradicate extreme hunger and poverty. In 2008, a national nutrition policy and strategy introduced thirteen nutrition approaches to improve the nutrition situation in the country. Nepal joined the Scaling Up Nutrition (SUN) global movement in 2011. The Food and Nutrition Security Action Plan (2013-23) was formulated in 2013. After Nepal's transition to a federal state, the Constitution of Nepal in 2015 has stipulated the right to food as a basic human right, and in the same year, Nepal became a signatory to the Sustainable Development Goals (SDGs) where Goal 2 is achieving Zero Hunger. A Zero Hunger National Action Plan (2016-25) was formulated in 2016, followed by the multi-sectoral nutrition plans for 2018-22 and 2023-30. A Right to Food and Food Sovereignty Act was promulgated by the Government in 2018, in line with the Constitution of Nepal. Also, following the Global Food Systems Summit in 2021, a Food Systems Steering Committee was formed by the National Planning Commission, and a Food Systems Transformation Strategic Plan was prepared in 2022.

The enactment of the Right to Food and Food Sovereignty Act, 2018, is a significant milestone in internalizing SDG 2. This Act incorporates all components of the Zero Hunger

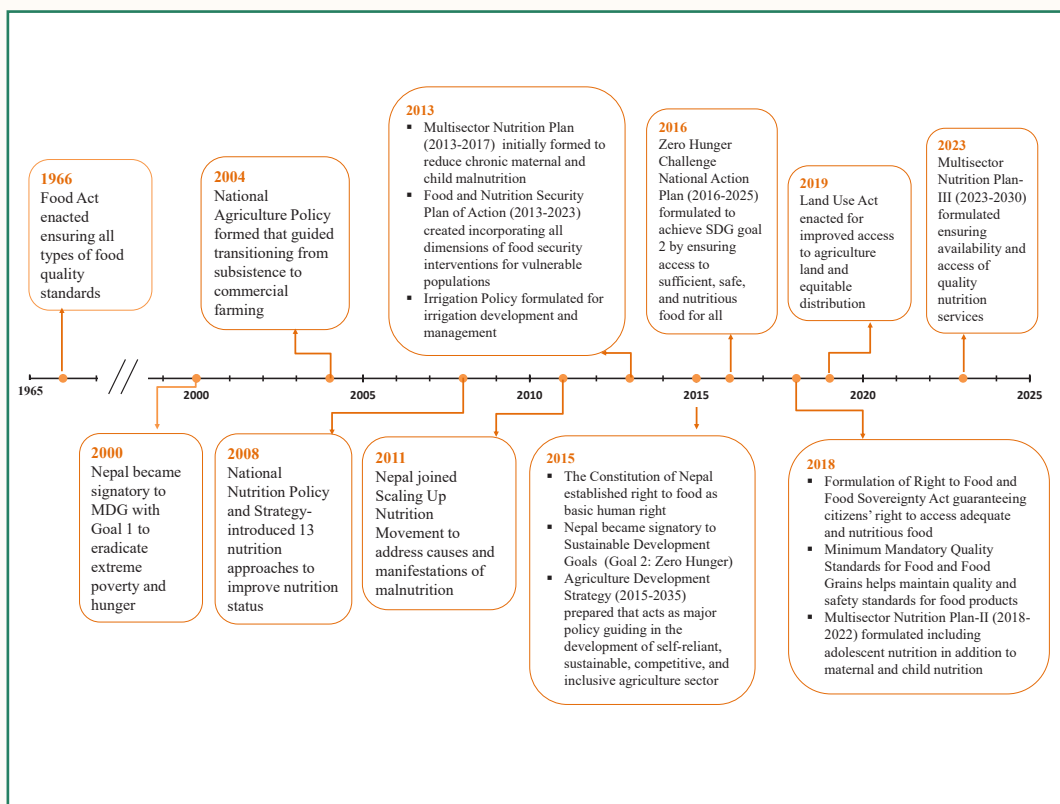


Goal and guarantees citizens' rights to food, food security and food sovereignty. The Act, along with the Right to Food and Food Sovereignty Regulations, 2018, serves as a guiding policy to ensure fundamental rights related to food.

Nepal's commitment to achieving the SDGs has been reflected since the very beginning through various policy-level initiatives. The country published the Sustainable Development Goals: Status and Roadmap (2016-2030) in 2016, and since then has been making efforts to implement activities aligned with this plan. Specific to SDG 2, several pre-existing policies introduced prior to 2015 have contributed towards this goal. Also, since the SDGs' commencement in 2015, Nepal has enacted additional laws that align with the various targets of SDG 2.

Figure 17.1 charts a timeline of various policy measures related to food security and nutrition in Nepal. Annex 4 provides the list of policies in a chronological order.

Figure 17.1: Timeline of major policies related to food security in Nepal





Implementation Mechanisms

Addressing food security and nutrition requires a multi-sectoral approach with coordinated efforts from all three tiers of the government, various sectoral ministries, research institutions, civil society organisations and development partners.

The National Planning Commission (NPC) has been serving as the apex body in the coordination of SDGs, including those related to food security and nutrition. A High-Level Nutrition and Food Security Steering Committee (HLNFSSC) was formed in 2011, chaired by the Vice-Chairman of the NPC with representation from various sectoral ministries and subject matter experts.

NPC has incorporated various programmes in line with the SDGs in its five-year periodic plans and the Medium-Term Expenditure Framework (MTEF). Since the fiscal year 2016/17, SDGs have been indicated in yearly budget allocations by the federal government. The Voluntary National Reviews of SDGs (2024) highlight concerted efforts to align objectives, strategies and programmes with the SDGs as part of the 14th and 15th plans. The Voluntary National Review mentions the preparation of baseline reports and the alignment of local and provincial plans and budgets accordingly. The 16th Plan (2024-29) emphasises accelerating SDG implementation to achieve national development goals.

Provincial and local implementation

The Constitution of Nepal established a three-tier system of government—federal, provincial, and local—with defined roles for each level. All tiers of government have some role in relation to Zero Hunger, health, agriculture, disaster management, poverty alleviation and statistics. The federal government mainly implements national-level projects, while provincial governments have jurisdiction on provincial-level irrigation, land management, agriculture, livestock development and industrialisation. Local governments are responsible for the collection and management of local records with local development plans and projects, local market management, management of agricultural extension and disaster management. Thus, it is obvious that coordinated efforts are required across all levels of government to achieve targets related to SDG 2.

In line with the new Constitutional provision, food security and nutrition coordination committees have also been formed at the provincial level, and in some municipalities as well. The implementation at provincial and local levels, however, remains uneven. For instance, the Right to Food and Food Sovereignty Act (2018) provisions for the formation of Provincial Food Councils and Local Food Coordination Committees. However, not all provinces have established these councils. As of 2025, Bagmati, Lumbini, and Sudurpaschim



provinces have yet to form the said councils. The NPC's strategic review highlighted the sustained lack of long-term development goals of the local governments (NPC, 2019). Furthermore, various supporting policies and related operational documents are prepared provincially in relation to SDGs (Annex 5). However, challenges remain in budget allocation and project implementation at the provincial and local levels.

Challenges in implementation

Despite a plethora of policy initiatives, implementation at the grassroots level remains inconsistent. While the SDGs have been incorporated into provincial policies, periodic plans, and MTEFs, they often lack fiscal space during budget allocations. For example, the MoF's economic surveys over the years showed that only 0.45 percent of Gandaki Province's and 1.4 percent of Bagmati Province's budgets were allocated under SDGs budget codes in the fiscal year 2020/21, which improved the following year to 25.32 percent and 32.8 percent, respectively. However, the budget was not disbursed under the budget code of SDG 2. This shows that the internalisation of SDGs, at least in terms of the budget allocation system, is not yet efficient and effective at the provincial level, let alone at the local level. As of now, only a few municipalities, such as Suryodaya Municipality in Ilam, have recently incorporated SDGs code in their budget system.

Implementation of SDG policies at sub-national levels remains challenging due to the diverse priorities of the provincial and local governments, which is also reflected in uneven efforts towards SDG achievement across different provinces (Annex 5). Moreover, to plan, execute, and monitor the SDGs at the provincial level, different committees have been formed, including the SDG Steering Committee, the Province SDG Coordination Committee, and the Targeted SDG Monitoring and Evaluation Committee. These committees have also drafted various supporting documents to localise the goals even at the local level governments in Gandaki and Karnali provinces. Karnali Province has already formulated the Right to Food and Food Sovereignty Act (2020) and the Right to Food and Food Sovereignty Regulations (2022), with the first amendment in 2023.

To sum up, Nepal has made considerable progress in policy formulation at the federal level to achieve SDG 2 (Zero Hunger) but the localisation and implementation of these policies at provincial and local levels remain challenging. Thus, despite these various initiatives, achieving Zero Hunger by 2030 appears to be a daunting task. Continued efforts are needed to ensure effective budget allocation, coordination among stakeholders and grassroots-level engagement and implementation to meet the targets by 2030.

Towards Zero Hunger: Recommendations

Summary

- It is clear that it is no longer realistic to expect to achieve Zero Hunger goals at the global level by 2030. In the case of Nepal, attaining Zero Hunger targets for all indicators does not seem possible, though the progress is encouraging in some of the indicators such as reducing the prevalence of undernourishment.
- Considering the unique context, Nepal should strive to address the triple challenge of food security, food self-sufficiency and economic prosperity generating adequate livelihoods for its population.
- This requires serious, concerted efforts including mobilisation of resources, effective implementation and a sound governance.

This chapter begins with a stocktaking of the progress so far in terms of key indicators related to Zero Hunger, examines prospects of achieving the targets by 2030, and offers broad policy recommendations as well as specific actions to advance the food security and nutrition agenda.

Stocktaking and the Prospects for Zero Hunger

With the 2030 target for the Sustainable Development Goals (SDGs) fast approaching, the 2025 Global Hunger Index makes it starkly clear that the world is far from meeting that critical goal (WHH et al., 2025). The report further states that at the current pace, at least 56 countries will not reach low hunger - much less Zero Hunger - by 2030, and if progress remains at the pace observed since 2016, low hunger at the global level may not be reached until 2160.

Similarly, considering the prevalence of undernourishment, eliminating hunger by 2030 appears to be impossible. Looking at the current trajectory, the number of undernourished people has risen sharply between 2019 to 2021 and then persisted at the same level until 2023. The situation in 2024, considering the mid-range estimates (8.4% of the population, or 680 million undernourished) is worse off than that in 2015 (7.7%, 570 million) (FAO et al., 2025). It is projected that some 512 million people will still be hungry or chronically undernourished by 2030.



In the case of Nepal, there has been significant progress in reducing hunger and malnutrition in the past few decades. However, achieving Zero Hunger by 2030, in absolute terms, does not seem feasible. Thus, there are targets set for 2030, in order to measure the progress towards Zero Hunger. Table 18.1 provides a list of key targets related to hunger, status on where we stand, and prospects of attaining those targets. These targets are derived from the GHI reports (for hunger, stunting, wasting and child mortality), SOFI reports (for undernourishment) and the NPC reports (for stunting and anaemia).

Table 18.1: Nepal's current status on key indicators related to Zero Hunger and the prospects until 2030

Indicator	Target for Zero Hunger (basis for the target)	Current Status	Prospect Until 2030
Global Hunger Index Score	<5 (minimal hunger, not significant) <10 (low hunger)	Moderate hunger with GHI at 14.8	Not possible to achieve the minimal hunger level of <5, but it may be possible to achieve a low hunger level (<10) with accelerated efforts
Prevalence of Undernourishment	< 2.5% (insignificant, range for most developed countries), under 5% (very low)	5.3%	A very low level (<5%) is achievable. With accelerated efforts, may reach <2.5% (insignificant levels)
Stunting	<2.5% (very low), 2.5 – 10% (low), 10 – 20% (medium); 15% (NPC 2021)	25% in 2022 (high)	Current trajectory may lead to medium (< 20%) (thus 50% of the 2012 level may be attainable); even with accelerated efforts, it will take some more years after 2030 to reach the low level (<10%)
Wasting	< 2.5% (Very low), 2.5 – 5% (Low); 4% (NPC 2021)	8% in 2022 (Medium: 5-10%)	With accelerated efforts, it may be possible to reduce it to a low level (<5%)
Child Mortality	< 1% (very low), 1– 4% (low), 4 – 7% (medium)	2.7% (low)	Reducing to a very low level (< 1%) is quite challenging; however, accelerated efforts should be made in that direction
Anaemia in Women and Children	10% (NPC target)	Women of reproductive age (34%); Children under 5 (43%)	With accelerated efforts, may be possible to reduce it to 20-25 percent for both women and children.



Despite the progress made so far, while achieving Zero Hunger by 2030 in absolute terms is no longer possible, there is a need to accelerate efforts even to achieve progress to a reasonable level.

The Resource Challenge

Accelerating efforts towards Zero Hunger, which is the need of the hour, would require allocation and mobilisation of a large amount of resources. The prospects now appear to be even more challenging, given Nepal's already heavy dependence on foreign assistance for its development programmes and the ongoing shift in the international aid landscape. This has already started affecting numerous programmes related to food security, health and nutrition, including maternity and child health programmes, immunisation programmes and school meals and other nutrition programmes. Similarly, the next round of the Nepal Health Facility Survey, scheduled for 2026, and the Nepal Demographic and Health Survey, scheduled for 2027, face uncertainty in the wake of funding cuts, thus affecting opportunities to generate new and updated evidence for coordinated policy responses and programmes designs in achieving Zero Hunger.

Renewed efforts must be made to ensure adequate funding for the vital programmes on food security and nutrition by reprioritising government allocation and taking up proactive, smart approaches to attract international funding through climate financing mechanisms or other sources, while making a solid case for continued funding from traditional sources. Eventually, the country needs to find ways to manage such vital programmes through its own resources without being overly reliant on foreign assistance.

Conclusion

General conclusion

This report presents a comprehensive analysis shedding light on Nepal's progress towards eliminating hunger and malnutrition. It compares Nepal's progress vis-à-vis global and regional trends, also highlighting the variations within the country by geographic regions and different social groups. In addition, a detailed analysis has been presented on various sectors contributing to food security and nutrition.

From the analyses presented, it is clear that Nepal has made significant progress in eliminating hunger, which needs to be pursued and accelerated further with enhanced efforts. Nepal remains vulnerable due to its dependence on imports for its food needs despite 60 percent of the population being engaged in agriculture. The vulnerability is further exacerbated by the economy's dependence on remittance as a large share of the



working age population opt to move abroad for work due to a lack of adequate livelihood opportunities at home.

Nepal faces the triple challenge of eliminating hunger, attaining food self-sufficiency and, economic prosperity that generates adequate livelihoods and income opportunities for the populations. All efforts shall be made to address these three challenges.

Recommendations

In line with the conclusions from the analyses, recommendations have been made at two levels. The first is a set of broad recommendations at the policy level, followed by specific recommendations on ways of improving and strengthening food security and nutritional outcomes.

Broad policy recommendations

Coordinated policy at the federal, provincial and local levels: In order to achieve the most effective outcome, it is important to have a coordinated approach across all levels of the government. At the federal level, it is important to enhance this coordination between the National Planning Commission, various sectoral ministries, development partners, research institutions, academia and civil society.

Food self-sufficiency: It should be a high priority at the policy level to attain self-sufficiency in basic food items. This can be achieved through better management of agricultural inputs such as seeds, fertilisers and irrigation facilities, improved soil and water management, climate-adaptive farming, reduced post-harvest losses, stronger extension services and enhanced marketing support, including reviews of trade practices where appropriate.

Food systems approach: It is important that we address food security and nutrition in a holistic way, with a food systems approach that looks at every step of the food chain from farm to the plate. Thus, it involves strengthening each part of the value chain, including production, processing, storage, market, distribution and consumption (and associated waste). This will also require the involvement of multiple stakeholders for which a coordinated approach is very important.

Prioritising nutrition: Addressing chronic malnutrition (stunting) requires a life cycle approach. This involves education, awareness building and provision of adequate nutritious meals to adolescent girls, pregnant and lactating women and children (particularly until two years of age). This should be further extended with the provision of nutritious meals to school-age children and promoting nutritious food to all people. Analysis of the malnutrition data suggests that high priority should be given to addressing chronic malnutrition in the mountain areas of Karnali and Sudurpashchim provinces, while priority for addressing acute malnutrition



(wasting) should be given in the Terai areas of Lumbini, Madhesh and Sudurpaschim provinces. High priority should also be given to reducing anaemia in women and children.

Coordinated and effective social protection: Social protection has played an important role in improving food security and nutrition and thus needs to be continued in a more effective and targeted approach so that individuals most in need are supported with the right kind of assistance and optimal use of the limited available resources.

Economy and livelihoods: The current state of food security and nutrition, which is heavily dependent on remittances from the out-migration of the working force, is not sustainable since the trend is making the country highly vulnerable to external shocks. Thus, all efforts need to be made to speed up the economic growth towards economic prosperity, providing adequate livelihoods for the population within the country.

Financing for Zero Hunger: Achieving Zero Hunger requires huge investment and there is a need to increase investment significantly from the currently inadequate levels. However, recent international developments are pointing towards a drastic reduction in prospects for international funding, on which Nepal has been relying heavily for its development efforts, including programmes related to food security and nutrition. To ensure adequate funding for Zero Hunger, renewed efforts must be made. This includes allocating resources from the Government and finding innovative, smart ways to attract international funding through mechanisms like climate financing. Additionally, reaching out to a wider range of donors is crucial.

Evidence-based programming: It is important that programmes for food security and nutrition be guided by evidence based on periodic studies, in order to make the most effective impact with appropriate allocation of resources. This report is a humble contribution towards that goal. Most of the data on food security and nutrition indicators, particularly those derived from the NLSS and NDHS are only at the province level, due to the limitations of those surveys. For designing effective programmes with optimal use of resources, it is necessary to have data at the municipality or district level. With small area estimation techniques, it is possible to have such data at the district or even sub-district level by combining such survey data with the data from the census, as done previously (CBS et al., 2006; CBS et al., 2015). It is thus recommended to take such analyses to generate reliable data at sub-province level to reflect the current situation.

Specific recommendations in addressing food security and nutrition

Based on the analysis presented and in line with the broad policy recommendations outlined above, the following specific recommendations are suggested to bring about the desired outcomes. These recommendations have been presented in relation to each pillar of food security, which contribute to the attainment of Zero Hunger goals.



Table 18.2: Recommendations specific to food availability, access, utilization and stability for advancing food and nutrition security

	Recommendations
Availability	Nepal should be self-sufficient in basic food through its own production by 2030
	Increase production by: ➤ Increasing government budget and following good governance practices to ensure timely and effective implementation, with coordination of various stakeholders, for the food production activities such as farming, livestock, poultry, fishery, horticulture and medicinal plants. ➤ Expanding the irrigation coverage by completing ongoing projects and implementing new projects on a priority basis. ➤ Providing fertiliser to farmers in a timely and adequate manner, preferably through domestic production. ➤ Providing seeds, including high-yielding varieties where appropriate, while maintaining and making the best use of the rich diversity of indigenous seeds. ➤ Using fallow lands for cultivation with appropriate policy measures and mechanisms. ➤ Adopting climate-adaptive farming to deal with climate uncertainties, such as increased irrigation and climate-resistant crop varieties and farming techniques. ➤ Using innovative methods and technologies such as high-yield varieties, innovative farming techniques, irrigation, appropriate farm mechanisation, improved livestock breeds and digital technologies to protect farmers and encourage them to produce more. ➤ Expanding marketing access of domestic produces, including by revisiting trade protocols with neighbours.
	Minimize food waste by reducing post-harvest loss and reducing food waste through measures on post-harvest loss reduction and campaigning for reducing food waste. ¹⁹
	The following programmes to improve economic access and utilisation should be geared towards achieving food security and nutrition goals through access to nutritious food, health and hygiene services and healthy food habits.

19. About 15-50 percent of the food produced is either lost or wasted, and any reduction from the current level could result in increased food availability.



Recommendations	
Access	In line with the Government's stated goal of economic prosperity, adequate income opportunities for working-age populations are essential to ensure economic access to nutritious food. Generating livelihoods for the population and expanding income-generating opportunities within the country should be an urgent priority. The following policy measures are recommended: ➤ Promote agro-processing and agribusiness for food products to increase livelihood opportunities, strengthen the linkage between agriculture and industry, and enhance the value chain of key commodities. ➤ Support enterprise development through the use of existing natural resources, including the abundant herbs found across the country, to enhance their value chains and provide better incomes. ➤ Enhance livelihood opportunities by facilitating investment in sectors with high potential such as tourism, hydropower and information technology. ➤ Stimulate the manufacturing sector to generate non-farm livelihood opportunities and reduce dependence on out-migration for income ➤ Speed up infrastructure development projects and link them with local livelihood creation to maximise employment benefits. ➤ Protect and improve the livelihood of vulnerable communities through safety nets and employment opportunities. ➤ Provide targeted and coordinated social protection for vulnerable populations most in need of assistance. ➤ Develop an efficient food transportation system to ensure food availability in markets across all parts of the country throughout the year.



	Recommendations
Utilisation	➤ Provide improved health facilities and access to all, at all levels including the local level. ➤ Provide access to safe water and sanitation facilities to all. Encourage hygiene practices such as sanitation and hand washing ➤ Implement programmes to ensure food quality. This would require enforcement of provisions under the recently adopted Food Hygiene and Quality Act, and institutional capacity on ensuring food quality, and regular monitoring. ➤ Implement nutrition sensitive programmes to encourage farmers to produce more nutrition-rich food. This may include among others, home gardening combining with small poultry or dairy for green leafy vegetables and protein-rich food. ➤ Promote nutrition specific activities, particularly to support vulnerable groups, women and children. ➤ Provide incentives like cash or other support for mothers and children to get adequate nutrition particularly during the golden thousand days (from conception to when children reach two years). ➤ Expand school meals programme, transforming them into systematic home grown school meals programme in collaboration with the community. ➤ Launch special activities to promote awareness on healthy food habits. This would involve education at school and raising awareness at all level. ➤ Promote the adoption of good practices in food systems as a whole - from soil to the dining plate.
Stability	Programme to enhance resilience in the face of natural disasters or other shocks to ensure stable food security and nutrition. Implement an effective early warning system and anticipatory action in addressing food security in times of disaster. Implement an effective shock-responsive social protection system. Operationalise effective strategic food reserves at different strategic locations, especially for serving vulnerable areas. The size of the reserve should be determined based on the lead time required to make the food available during the emergency situations. Work with communities for raising awareness and implementing community-based disaster management to enhance their capacity to deal with the disasters.



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Annexes

Annex 1: Evolving Concept of Food Security

Over time, scholars have examined hunger as a multifaceted issue encompassing social, economic, and physiological dimensions. Thomas Malthus, in “An Essay on the Principle of Population,” linked hunger to population growth and food production (Malthus, 1798). The Universal Declaration of Human Rights (1948) evidently mentions that everyone has the right to food (Article 25). This early perspective laid the foundation for understanding hunger as a systemic challenge. The mid-20th century saw significant global efforts to address hunger, marked by the establishment of the Food and Agriculture Organization (FAO) in 1945 and the World Food Programme (WFP) in 1961. These institutions aimed to combat hunger and improve nutrition worldwide.

In 1973, the UN General Assembly decided to convene a World Food Conference to resolve the world food problem within the broader policy context of development and international economic cooperation after a severe food crisis in the world in the early 1970s. The concept of food security evolved as official policy thinking in 1974 with the Rome “Universal Declaration on the Eradication of Hunger and Malnutrition”. It highlighted that “every man, woman and child has the inalienable right to be free from hunger and malnutrition to develop fully and maintain their physical and mental faculties” (United Nations, 1974).

A pivotal shift in understanding hunger came with Amartya Sen’s work on poverty and famines (1981), which redefined hunger as an issue of access and entitlements rather than mere food availability. This perspective highlighted the role of social and economic inequalities in perpetuating hunger (Sen, 1983). The FAO notion of food security in 1983 was limited to the food supply, focusing on availability and price stability of basic foodstuffs at the international and national level, stating “availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices” (FAO, 2006). Further, an influential report on “Poverty and Hunger” published by the World Bank added temporal dynamics of food insecurity (World Bank, 1983). This report introduced the distinction between chronic food insecurity, associated with problems of continuing or structural poverty and low incomes, and transitory food insecurity, which involved periods of intensified pressure caused by natural disasters, economic collapse or conflict in line with the Sen’s theory of famine (1981) and emphasized the effect of personal entitlements on food access i.e. production, labor, trade and transfer based resources (FAO, 2006).

The Human Development Report (1994) identified food security as one of the seven key threats to human security. These threats included food security, economic security, environmental security, communal security, political security, personal security, and health security. The World



Food Summit (1996) reinforced the multidimensional nature of food security and included food access, availability, food use and stability. It has enabled policy responses focused on the promotion and recovery of livelihood options (FAO, 2006). Based on the food summit 1996 food security is defined as “when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” This definition identifies four dimensions of food security: (a) availability—sufficient food supply through domestic production, imports, and food aid; (b) access—the physical and economic ability of households to obtain food; (c) utilization—proper consumption and absorption of nutrients; and (d) stability—consistent access to food over time (FAO, 2006). Several studies and reports, including those mentioned earlier, underlined that climate change, social factors like conflict, poverty, and unemployment and low wages, poor infrastructure, particularly in developing countries, as drivers for food insecurity (IPCC, 2019; FAO et al., 2023).

Hunger, on the other hand, is the uncomfortable or painful physical sensation caused by insufficient dietary energy intake. It becomes chronic when individuals consistently fail to consume enough calories to maintain a normal, active, and healthy life (FAO, 2024). Hunger is understood in various ways, ranging from individual physical sensations and household behavioral responses to national food balance assessments, which measure the availability of dietary energy (kilocalories) relative to a country's minimum nutritional requirements (Webb et al. 2021). The FAO uses the Prevalence of Undernourishment (PoU) indicator to estimate global hunger levels, often equating hunger with undernourishment. Additionally, the FAO measures food insecurity through the Food Insecurity Experience Scale (FIES), which categorizes food insecurity into three levels: (a) Food Secure—adequate access to food in both quantity and quality; (b) Moderate Food Insecurity—individuals face uncertainty about their ability to obtain adequate food and may reduce the quality or quantity of their diet; and (c) Severe Food Insecurity—individuals typically run out of food and may go a day or more without eating.

The global commitment to eradicating hunger gained momentum with the Millennium Development Goals (MDGs) between 2000 and 2015, which emphasized hunger reduction as a key development target. Building on these efforts, the United Nations formally integrated the Zero Hunger concept into the Sustainable Development Goals (SDGs) in 2015, specifically under SDG 2: Zero Hunger. This goal reflects a renewed global resolve to eliminate hunger by addressing its root causes and ensuring sustainable food systems.

To sum up, hunger and food insecurity remain pressing global challenges, but significant progress has been made in understanding and addressing their root causes. From early theoretical frameworks to modern global initiatives, the fight against hunger continues to evolve, driven by a combination of research, policy, and grassroots action. The Zero Hunger movement, embodied in SDG 2, represents a collective commitment to ensuring that everyone, everywhere, has access to sufficient, nutritious food.



Annex 2: Methodological Notes

2A: Additional notes on indicators for hunger, food security and nutrition

In addition to the indicators (Global Hunger Index, Prevalence of Undernourishment, CARI, Food Consumption score, Global Food Security Index, Percentage Expenditure on Food, caloric intake) mentioned in Chapter 2, some other indicators which are used in food security analyses are briefly described below:

Integrated food security phase classification (IPC): The IPC is a multi-stakeholder initiative to provide a common scale for classifying the severity and magnitude of food insecurity and acute malnutrition. It classifies severity of acute food insecurity in 5 categories, namely, Minimal (Phase 1), Stressed (Phase 2), Crisis (Phase 3), Emergency (Phase 4) and Catastrophe/Famine (Phase 5). This is often the basis for humanitarian assistance in areas with high acute malnutrition, particularly during crisis or emergencies. The Global Report on Food Crisis, produced annually since 2016, mainly utilizes results from IPC analyses. The total number of people facing high levels of acute food insecurity increased from 105.2 million in 48 countries in 2016 to around 295.3 million in 53 countries/territories with data meeting GRFC technical requirements, in 2024 (GRFC, 2025). Nepal is not among those countries reported in GRFC which covers countries with high levels of acute food insecurity requiring significant humanitarian assistance. In Nepal, an IPC-like methodology called NeKSAP (*Nepal Khadya Surakshya Anugaman Pranali* or Nepal Food Security Monitoring System), developed and led by WFP, in collaboration with the Government and other stakeholders, was practised from 2007 for about ten years, which was used to classify areas based on severity of acute food insecurity providing basis for prioritizing areas for assistance. IPC data have not been used in this report as there have been no IPC or IPC-like analyses covering the whole country, and thus the unavailability of data for trend analysis.

Food insecurity experience scale (FIES): The FIES is an experience-based metric of food insecurity severity based on households' responses to eight questions about their experiences facing constrained access to food during the last 12 months. The FIES global reference scale is based on results from the applications of FIES survey module in countries covered, by the Gallup World Poll in 2015, 2015 and 2016. Food insecurity prevalence rates from different countries are compared by calibrating them against this global reference. This indicator is used to report on SDG 2.1.1 and results from FIES analyses are presented in State of Food Security and Nutrition by FAO et al. FIES data have not been used in this report, due to lack of sufficient, reliable data for a trend analysis.



MDD-W and All-five food groups: MDD-W is a measure of Micronutrient adequacy. MDD-W is achieved when more than five out of ten specific food groups are consumed by an individual over the course of a day. Women in low- and middle-income countries who do not meet the MDD-W are at higher risk of inadequate micronutrient intakes.

All-5 for Age 15 years and older, general population; in this report, All-5 is reported for people age 15 years and older. The indicator measures as a proxy of Food group adequacy. Proportion of the total population consuming all five food groups typically recommended for daily consumption in food-based dietary guidelines around the world: fruits; vegetables; pulses, nuts, or seeds; animal-source foods; and starchy staples. Variants of this indicator can be adopted for specific national food-based dietary guidelines with different food group requirements.

In principle, this indicator has no false negatives (specificity is 100%): people who did not consume the food groups definitely did not meet dietary guidelines. It has many false positives (lower sensitivity): many people who consumed all five food groups still may not have met dietary guidelines in terms of proportions or amounts consumed.

2B: Methodological note on household food consumption analysis from NLSS data

Household food consumption and household food expenditure in this report is based on the analysis of household survey data from the Nepal Living Standards Surveys (NLSS) conducted by the National Statistics Office (NSO). There have been four rounds of NLSS so far, conducted in 1995/96 (NLSS I), 2003/04 (NLSS II), 2010/11 (NLSS III) and 2022/23 (NLSS IV). Additionally, the NSO conducted short modules as part of the Annual Household Surveys (AHS) from 2012/13 to 2016/17, collecting information on various aspects of household consumption. These surveys provided the quantities of food consumed and the expenditure on food by households considering a comprehensive list of food items.

The calories from individual food items were calculated using the caloric value of the unit food quantity consumed in the reference period (last 30 days or past 7 days depending on the food item). Caloric conversion per unit of the food item was derived from the information published in the “Nutrient Content of Nepalese Foods” prepared by the Department of Food Technology and Quality Control, Ministry of Agricultural Development in 2012 and updated in 2017.

The value of food quantity consumed and the caloric supply from the food items were validated using the results from NLSS-I through NLSS-III and several rounds of AHS. The caloric consumption in NLSS-IV 2022/23 was then calculated for this report using same



method, using the micro data of NLSS-IV. The kilocalorie consumption is calculated mainly utilizing the caloric value of food item consumed presented in item-level tables of “Nutrient Content of Nepalese Foods, 2017” published by the Department of Food Technology and Quality Control (DFTQC). And the caloric sufficiency is then calculated by comparing this with the threshold for caloric requirement recommended by NSO.

The information on quantity and price of food consumption was collected for 117 food items in NLSS-IV 2022/23.

Although the analysis was done in broader food groups, information was collected in a series of 13 groups of food items as follows: i) grains and cereals (9 items), ii) Pulses and Lentils (12 items), iii) meats and fish (8 items), iv) eggs and milk products (9 items), v) oils and fats (6 items), vi) fruits and nuts (14 items), vii) vegetables and tubers (21 items), viii) sweets and confectioneries (7 items), ix) spices and condiments (10 items), x) tea and coffee (2 items), xi) non-alcoholic beverages (5 items), xii) alcoholic beverages (4 items), xiii) prepared food products (10 items).

Both the quantity and price information were available for 97 food items. The other 20 items were lumped into other food categories, e.g. “code 109: Other grains/cereals (sorghum, naked barley, fox-tail millet, etc.)” for which only price information was available. For food items of other categories, the mean unit price of this food group was used to calculate the quantity consumed in those categories. The imputation of quantity information for all the food items collected facilitates the calculation of the calorie provided by the individual food item.

When quantity information was unavailable for specific food items, their unit price was taken from the broader food group by calculating the median price (Rupee per kg) for the group. The quantity was then derived by dividing the value (purchased or produced) by the unit price.

The caloric value of most of the food items considered was available in the calorie conversion table mentioned above. For some of the other category food items the caloric value was taken as the simple average of the individual food items’ caloric measure among the items in particular food group. The calorie conversion table has the name of the food item, its code, the kilocalorie per 100 grams of food item and edible portion (percentage) of the food items consumed. By multiplying the quantity consumed (grams), caloric value (kcal per gram) and the edible share (percentage of the food that can be consumed), the kilocalorie supplied by the food items was calculated.



For the food items consumed outside of home (e.g. for breakfast, lunch or dinner), only the value (cost in Rupees) was collected for food consumption. Total value of the food items was converted into the kilocalorie value using the kilocalorie value per Rupee from the food consumption section described above. To address the likely kilocalorie price difference by different sections of survey population, the average was created for each decile of per capita consumption. The monetary value of outside home food consumption was converted into caloric consumption value by imputing the average unit value of kilocalorie consumption calculated above for each decile separately. The sum of calorie consumption derived directly and the imputed value provided the total kilocalorie consumption. The per capita caloric consumption was derived by dividing the household consumption with household size. This value was generated at household level as the food consumption data was collected at the same level. The kilocalorie consumption per person per day was calculated and compared against the requirement, considering threshold of 2236 kilocalorie per person per day as defined by the poverty assessment of NLSS IV 2022/23. The values were presented in different population groups that can be represented by considering the survey sample design. The other values, particularly for NLSS I, II and III, were adapted from the published figures of statistical reports published by NSO.

The data on food quantity consumed (kg per year), caloric consumption (kilocalorie per capita per day) and kilocalorie poverty were compiled for four rounds of the NLSS and three rounds of the AHS to analyse trends in consumption.



Annex 3: Agro-ecosystem in Nepal

Nepal, a landlocked country situated between India and China, has a large topographic variation extending from the highest point on earth to the plains of Terai. Physiographically, Nepal may be divided into five regions, which run from east to west almost parallel. Each of these has unique geographic and climatic characteristics with implications for agriculture. They are Terai plains, Siwalik hill, middle hill, upper hill, and high mountain as explained in Table A3.1. It may be noted that generally, there is less rainfall in the mid- to far-western parts of Nepal compared to the East and Central areas.

Table A3.1 Physiographic regions and agriculture

Physiographic Region	Geographic Characteristics	Agriculture
High Mountain	Comprising 15 percent of the total land area of Nepal, with elevation ranging from 4,000 to 8,848 m; cold alpine climate, active glacier system; area above 5,500 m mostly under permanent snow, the source of perennial water for the population in South Asia	Mostly not suitable for agriculture; may be used for some livestock like yak and goats for grazing; source of precious mountain herbs such as <i>Yarsa Gumba</i>
Upper Hill	2,400-4,000 m (29 percent of total land area); temperate to alpine climate	About 13 percent of land is suitable for agriculture; good for livestock such as yak, goats and sheep and fruits such as apples and mountain herbs
Middle Hill	29.5 percent of the total land area, elevation (800-2,400 m); subtropical to temperate climate; rugged topography; also includes valleys like Kathmandu and Pokhara	About 42.5 percent of land is suitable for agriculture; climate supports year-round agriculture including rice, maize, millet, soybean, fruits and vegetables
Siwalik Hill	12.7 percent of total land area; elevation ranges from 200-1,500m; subtropical climate in lower regions and warm temperate climate in higher hills; doon valleys namely Chitwan, Dang and Surkhet are in this region	Suitable for all crops including rice, maize, millet, wheat, potato, vegetables, and fruits such as mango, papaya and banana
Terai	13.8 percent of the total land area; 66 to 300 m; generally flat, consisting of alluvial deposits; subtropical climate with good rainfall.	64 percent of land suitable for agriculture; considered as the bread basket of Nepal, the Terai region has a very crucial role in agricultural production in Nepal



Annex 4: Chronological Order of Policies Enacted that are Relevant to SDG 2 (Most Recent to Past)

List of Policies	Key Focus Areas	SDG2 Target
National Agroforestry Policy, 2019	Focuses on integration of trees, crops, and livestock, restoration of degraded land, diversification of food sources, increasing farmers' incomes and adopting climate resilience measures for sustainable food and forestry system	2.1, 2.2, 2.3, 2.4, 2.5, 2.a
Climate Change Policy 2019	Emphasises the adoption of climate-smart technologies, natural resources conservation, renewable energy and sustainable land management to promote sustainable development and reduce risk and vulnerabilities of extreme climate events across various sectors, including agriculture enhancing resilience	2.4, 2.5, 2.a
National Strategy for the Development of Statistic (NSDS), 2018/19-2022/23	Strengthens the national statistical system, ensuring the production of reliable, timely, and disaggregated data for evidence-based decision-making, including data related to food security, crucial for monitoring progress and identifying gaps	All
Right to Food and Food Sovereignty Act, 2018 and Right to Food and Food Sovereignty Regulations, 2018	Guarantees the citizens' right to access adequate and nutritious food, emphasizing food sovereignty by prioritising local food systems, sustainable agriculture, and equitable distribution	2.1, 2.2, 2.3, 2.4, 2.5, 2.a, 2.b, 2.c
National Land policy, 2075 and Land Use Act, 2076	Improve access to agriculture land and equitable distribution, sustainable land management prioritising agricultural land productivity, biodiversity and resource conservation including climate-resilient land use planning	2.1, 2.3, 2.4, 2.5, 2.a
Minimum Mandatory Quality Standards for Food and Food Grains, 2018	Establishes essential quality and safety standards for food products by regulating food quality, promoting consumer awareness and fair-trade practices for sustainable food systems.	2.1, 2.2, 2.4, 2.a, 2.b, 2.c
The Local government Operation Act, 2017	Delegates authorities to local governments to address local issues including those related to agriculture, food security, and nutrition	2.1, 2.2, 2.3, 2.4, 2.5, 2.a, 2.b, 2.c



List of Policies	Key Focus Areas	SDG2 Target
Zero Hunger Challenge National Action Plan (2016-2025)	Ensure access to sufficient, safe, and nutritious food for all, and eliminate all forms of malnutrition	2.1, 2.2, 2.3, 2.4, 2.5, 2.a, 2.b, 2.c
Agriculture Development Strategy (2015-2035)	Self-reliant, sustainable, competitive, and inclusive agriculture sector development that drives economic growth, contributes to food and nutrition security and food sovereignty through enhancement of agricultural productivity, commercialisation, market access and value chain development, strengthening agricultural research and extension services, improvement in rural infrastructure and financial access	2.1, 2.2, 2.3, 2.4
Agriculture Mechanisation Promotion Policy 2014	Modernisation and commercialisation of agricultural production system through mechanisation to increase agriculture productivity and competitiveness	2.3, 2.4, 2.a, 2.b
Food and Nutrition Security Plan of Action (2013-2023)	Incorporates all dimensions of food security interventions for vulnerable populations with specific focus on the local level agriculture production system to address severe malnutrition	2.1, 2.2, 2.3, 2.4, 2.5, 2.a, 2.b, 2.c
National Seed Vision (2013-2025)	Prioritises self-sufficiency in quality seeds production and supply to enhance crop productivity and enhances seed import substitution and export	2.1, 2.3, 2.4, 2.5, 2.a, 2.b
Multi Sector Nutrition Plan (2013-2022)	Reducing chronic maternal and child malnutrition through nutrition sensitive interventions, its improved access and, improving policies and multisectoral coordination	2.1, 2.2
Irrigation Policy (Revised), 2013	Development and supply of year-round irrigation facility through institutional capability enhancement and mobilization of water users and related development partners	2.3, 2.4, 2.a
Climate Change Adaptation and Disaster Risk Management in Agriculture: Priority Framework for Action (2011-2020)	Prioritises institutional and technical capacity by adopting measures of climate change adaptation and disaster risk management in agriculture including awareness of producers to minimise risks	2.4



List of Policies	Key Focus Areas	SDG2 Target
NARC Vision (2011-2030) and Nepal Agriculture Research Council Act, 1991	Enhances food and nutritional security in the country through scientific and technologically innovative agriculture research in various ecological zones and agro-biodiversity conservation.	2.5, 2.a
Agribusiness Promotion Policy (2006)	Focuses on profitable and competitive agribusiness, processing and cold chain maintenance through marketing infrastructures and export.	2.1; 2.a; 2.b; 2.c
Agro Biodiversity Policy 2006 (revised 2014)	Conservation and utilisation of agricultural genetic resources; technology and materials; and local knowledge and skills for present and future generations.	2.5
National Agriculture Policy (2004)	Transitioning from subsistence to commercial farming by increasing agricultural production and productivity sustainably and conserving/utilising natural resources, environment, and biodiversity to ensure food security.	2.1, 2.2, 2.3, 2.4, 2.5, 2.a, 2.b, 2.c
Slaughterhouse and Meat Inspection Act, 1998	Controls the quality standard in meat and meat products	2.1, 2.2
National Cooperatives Development Board Act, 1992	Promotes development of cooperatives for ultimate livelihood improvement with aim to increase investment	2.a
Pesticides Act, 1991	Controls the import, export, production, trade and use of pesticides and insecticides and allows only enlisted insecticides and pesticides.	2.1
National Dairy Development Board Act, 1991	Emphasises increased national dairy production for citizen health and promotes necessary import and export, dairy business through cooperatives and construction of dairy industries	2.1, 2.2, 2.a, 2.b, 2.c
Food Act, 1966	Ensures the food quality standards in all types of solid/liquid food items for uncompromised citizen health.	2.1, 2.2
Aquatic Animal Protection Act, 1960	Focuses on safe practices of catching and killing the aquatic animals (e.g., use of safe poison), which ultimately links to the quality of the aquatic food to be consumed by the citizens	2.1, 2.2
5. 14 th - 16 th periodic plans	Have strong focus on sustainable development and emphasises agriculture modernisation; increased investment in agriculture, irrigation, rural infrastructure; climate resilient agriculture practices	2.1, 2.2, 2.3, 2.4, 2.5, 2.a, 2.b, 2.c



Annex 5: Key Provincial Policies and Supporting Documents Related to SDGs

Province	Documents	Remarks/Observations
Koshi	Provincial Project Selection and Categorization Procedure, 2023	SDG goals as one of the bases for prioritization of the projects (SDG 2 included in regional basis)
	Sustainable Development Goals Localization Roadmap	Document not found but mentioned
Madhesh	SDG Baseline and Roadmap: Pradesh 2 Report	Document mentioned in the planning commission website but could not be downloaded
Bagmati	Budget Code Source Book for Sustainable Development Goals, 2022	Document not found but mentioned to be prepared
Gandaki	SDG Localization Roadmap of Gandaki Province (2079-2087)	Priorities, instruments, investment and institutional arrangements necessary for SDG identified and for localization, awareness raising, advocacy, implementation, monitoring and institutional coordination steps explained For SDG2, identified following policy interventions: improving food and nutrition security for left out disadvantaged groups; agriculture extension system expansion; year-round irrigation; easy access/availability of agriculture input products; rural road and agriculture tourism development; agriculture commercialization and diversification
	Budget Code Source Book for Sustainable Development Goals, 2022	Identifies programs related to each SDG for proper budget coding
Lumbini	Agriculture Subsidy Fund Mobilization Procedure, 2016	Considers sustainable agriculture development and has food and nutrition security as one of the investment areas



Province	Documents	Remarks/Observations
Karnali	Working procedure for special production programme on food security 2017	Formulated mainly to cope during the Covid-19 pandemic
	Right to Food and Food Sovereignty Act, 2017	Act formulated with aim to ensure food security at provincial level
	Procedure and Criteria for Project Proposal Selection, 2024	Considers contribution to SDGs as both general and area-wise criteria for the selection and prioritization of the projects
Sudurpaschim	Project Categorization Basis and Standards, 2023	Mentions direct contribution to SDGs to be considered as national priority projects

Source: Websites of provincial policy and planning commissions



Annex 6: Targets and Progress of SDG-2 Indicators by the National Planning Commission in 2022

Indicator	Description of SDG Indicators	Baseline	Targets			Progress	
		2015	2019	2022	2030	2019	2022
2.1.1	Prevalence of undernourishment	36.1	27.3	20.6	3	8.4	5.4
2.1.2	Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES) percent	8.5	7.8	7	5	7.8	12.5
2.1.2.2	Prevalence of severe food insecurity (percent)	10.4	10	9	6	9.9	1.3
2.1.2.3	Prevalence of moderate food insecurity (percent)	29.5	28	26	19	22.7	11.2
2.1.2.4	Per capita animal source protein production (kg)	4.7	5.5	7.1	8.7	7.5	7.5
2.1.2.5	Per capita food grain production (kg)	320	376	418	530	376	381
2.1.2.6	Global Food Security Index (score)	42.8	57	66	90	46	56.9
2.2.1	Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age	36	32	28.6	15	31.6	24.8
2.2.2	Prevalence of malnutrition (weight for height $>+2$ or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age	11.3	8	7	4	10	7.7
2.2.2.1	Percentage of children under 5 years of age who are underweight (weight for age $<-2SD$)	30.1	20	18	9	24.3	19
2.2.2.2	Prevalence of anemia among women of reproductive age	35	26	24	10	40.8	34

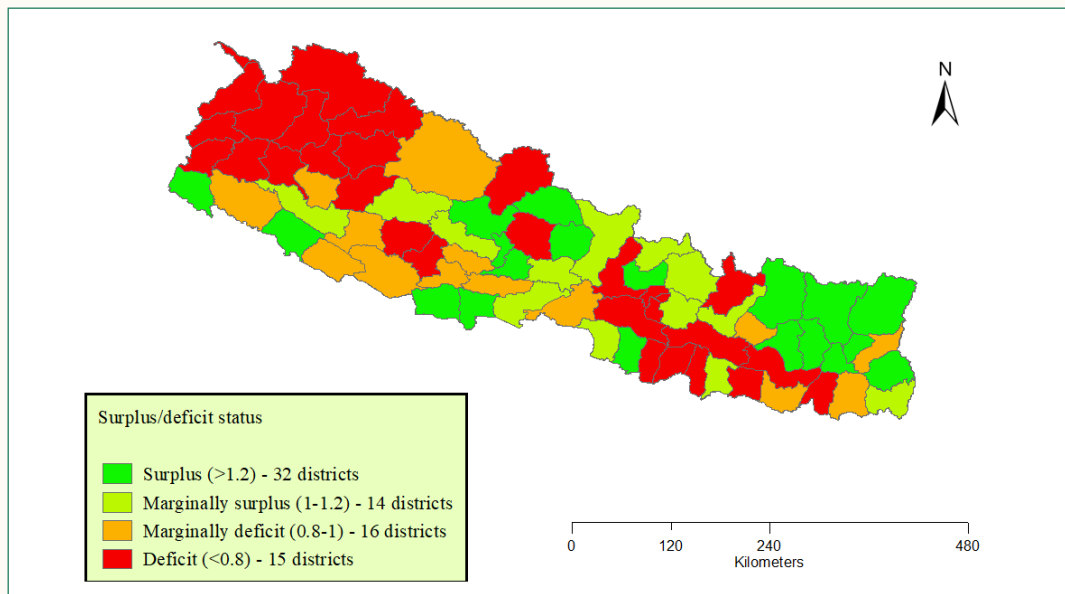


Indicator	Description of SDG Indicators	Baseline	Targets			Progress	
		2015	2019	2022	2030	2019	2022
2.2.2.3	Prevalence of anemia among children under 5 years	46	33	28	10	52.7	43
2.3.2.1	Land productivity (Mt./ha) USD	3278	4003	4646	7018	4022	4022
2.3.2.2	Livestock productivity- (Ltr/ milking livestock)	600	-	845	1000	1200	1300
2.4.1.1	Round the year irrigated land in total arable land (percent)	25.2	40	50.5	80	33	39.64
2.4.1.2	Soil organic matter (SOM in crop land, percentage)	1.96	2.79	3.37	4	2.80	2.83
2.a.1	Government expenditure in agriculture (percent of total budget)	3.3	-	3.34	4	2.21	2.41
2.b.2	Productivity of food grain (mt. tone/hq.) (Paddy/Wheat/Maize/ Milet/Barley/ Buckwheat)	-	-	3.21	4	3.21	3.3
2.c1.1	Food Consumer Price Index	114	120	144	208	135.97	159.28

Source: National Planning Commission (2024)



Annex 7: Food Surplus/Defficit Status by District



Source: Neupane et al. (2025)

Nepal Development Research Institute (NDRI) is an independent, non-profit institution dedicated to addressing contemporary and emerging challenges through quality research for evidence-based policy and programming. Established in 2004, NDRI comprises an interdisciplinary team of experts with the highest academic standings and a wealth of national and international experiences. NDRI has been able to strengthen the linkage between policymakers, academia, different national and international organizations, and a pool of experts.

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